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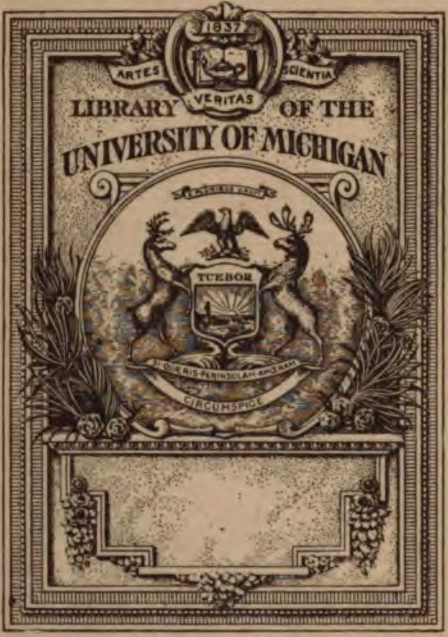

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EDINBURGH
MEDICAL AND SURGICAL
JOURNAL:

EXHIBITING

A CONCISE VIEW

OF THE

LATEST AND MOST IMPORTANT DISCOVERIES

IN

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VOLUME THIRTEENTH.

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1817.

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ERRATA.

Page 270, line 28, *for* Nolt *read* Nott, and line 29 the same
—— 278, — 1, *for* magnificence *read* munificence
—— 283, — 40, *for* Breslot *read* Bristol
—— 286, — 40, the English spelling of the two Hebrew words should be *meze ragnab* not *rob mui* as erroneously given in the manuscript.
—— 294, subjoined to the Table of the General State of Weather and Sickness, &c. the following has been omitted by the printer, viz. Medium Temperature 48°. Medium Barometrical Height 29.19. Medium Quantity of Rain *per ann.* 35.26
—— 296, in Mr Cumberland's Geological description
line 8, *for* Potterdown *read* Totterdown
— 9, *for* Redlam *read* Redland
— 10, *for* Gotham *read* Cotham
298, — 25, *for* Mycelatæ *read* Mycetatæ
—— 331, — 5, *for* James Robinson Scott, F.R.S. *read* James Robinson Scott, F.L.S.

Vol.

Mr Kennedy's Case.

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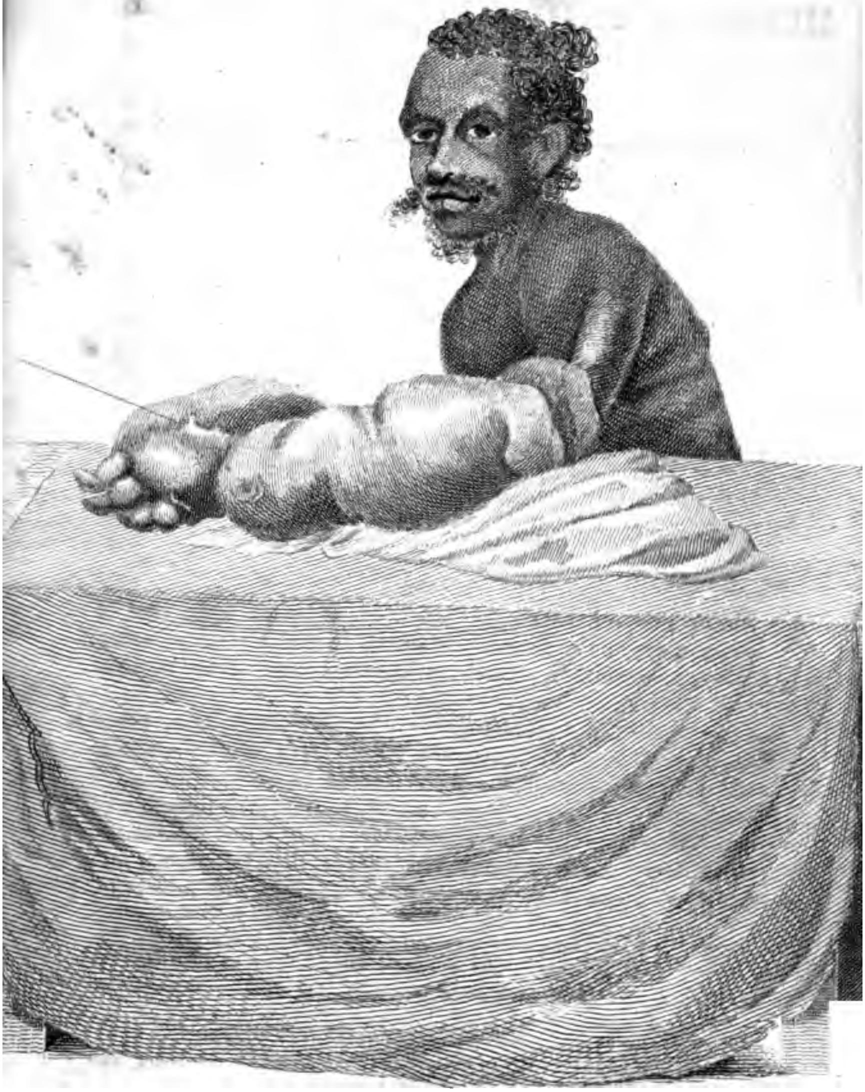

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1. JANUARY, 1817.

PART I.

ORIGINAL COMMUNICATIONS.

I.

Critical Review of the State of Medicine during the last Ten Years.

(Continued from Vol. XII. p. 411.)

III. *Pathology.*

As the progress of pathology must always depend upon that of physiology, the improvement of the former science, during this period, corresponds with the discoveries made in the natural history of the human body.

We begin with the elementary works. Among these, there appeared new editions of *Sprengel's* Elements of Pathology; (*a*) also a Latin translation of the whole work, in two volumes. (*b*) *A. Winkelmann's* publication was founded upon the doctrine of the three different systems of the body. (*c*) *Andrew Röschlaub*, who had determinedly abjured the theory of excitement, attempted now to advance new principles, (*d*) which, however,

---

a) Von *Sprengel's* Handbuch der Pathologie die dritte Auflage des zweyten Theils, 1806, des dritten Theils, 1810, die vierte Auflage des ersten Theils, 1814.

b) Institutiones Pathologiæ generalis et specialis, Vol. I. II. Amst. 1813, 1814. 8.

c) Entwurf der dynamischen Pathogenie. Braunschw. 1806. 8.

d) Von dem Einzelnleben als geschiedeti vom Gesammtleben der Natur, von der Getrenntheit des geistigen Lebens vom körperlichen.

have appeared to be of little value. (*a*) *A. F. Hecker's* sketch (*b*) was not remarkable either for novelty of ideas or exactness. The same may be said of *L. F. Burdach's* (*c*) and *A. Henke's* publications (*d*) on the subject, in the latter of which, the theory of excitement is predominant. *J. D. Brandis* (*e*) explained pretty well some physiological and pathological doctrines; for example, the teleological notion of disease, the deranged associations, and the doctrine of infection; but, upon the whole, he rather furnished additions to physiology and pathology, than an elementary work on the latter science. *J. Spindler* in his publication (*f*) has accumulated learned nonsense. *D. G. Kieser's* work (*g*) also is distinguished by the misapplication of the oriental dualism, and the totally misunderstood laws of curves, to the explanation of diseases. *J. W. H. Conradi's* treatise, (*h*) on the contrary, deserves great praise, owing to the considerate use he made of the newest discoveries, its good arrangement, and a judicious selection of literature. *E. Grossi* also, in his treatise, (*i*) delivered a methodical, natural-historical explanation of the changes which take place in particular parts of the body, in consequence of disease. *F. G. Gmelin's* (*k*) and *P. C. Hartmann's* books (*l*) are to be reckoned among the best and most original attempts to deliver this science in a better order than has been hitherto done.

A new nosology, arranged very like *Cullen's*, taking into view all the exciting causes of diseases, was published by *F. Swediaur*; (*m*) often, however, it is not sufficiently critical, and scarcely ever mentions authorities.

The doctrine of the diagnosis of diseases was delivered in an ingenious and useful tabular form by *K. G. Schmalz*. (*n*) The

---

a) Lehrb. der besondern Nosologie, Iatreusiologie und Jaterie. Abth. 1, 2. Frkf. a. Main, 1807, 1808. 8.

b) Kurzer Abriss der Pathologie und Semiotik. Berl. 1806. 8.

c) Handbuch der Pathologie. Leipz. 1808. 8.

d) Handbuch der allgemeinen und speciellen Pathologie. Thl. 1—3. Berl. 1806—1808. 8.

e) Pathologie, oder Lehre von den Affecten des lebendigen Organismus. Hamb. 1808. 8.

f) Allgemeine Nosologie und Therapie als Wissenschaft. Frkf. a. M. 1810. 8.

g) Grundzüge der Pathologie und Therapie des Menschen. Jena, 1812. 8.

h) Grundriss der Pathologie und Therapie. Thl. 1, 2. Marb. 1811, 1812. 8.

i) Versuch einer allgem. Krankheitslehre. B. 1, 2. München, 1811. 8.

k) Allgem. Pathologie des menschl. Körpers. Stuttg. 1813. 8.

l) Theoria morbi s. pathologia generalis. Viennae, 1814. 8.

m) Ἰατρικὴ, s. novum medicinae rationalis systema, Vol. I. II. Hal. 1812. 8.

n) Versuch einer medicin. chirurgischen Diagnostik in Tabellen. Leipz. 1806. fol. und Dresd. 1808. fol.

investigation of diseases, at the bed-side of the sick, was once more explained by *K. C. Heuser*, (*a*) who followed the example of his illustrious predecessors.

Semiotics, or the doctrine of morbid signs, also gained some additions, or at least corrections. *A. F. Hecker* (*b*) threw out some good ideas how semiotics were to be improved, and how they were injured by system. *J. C. A. Heinroth* reedited *F. G. Danz's* work. (*c*) *K. Wolfart* (*d*) also pretended to remodel semiotics; but it is doubtful if his mystical language was intelligible to himself. In France, it was still thought sufficient to apply and explain the dogmas of *Hippocrates*; (*e*) but *Doubs* (*f*) collected some good observations on voice and speech, and the various circumstances of the external appearance as signs of disease. *Hernandez* (*g*) published a prize essay on the signs derived from the tongue. The remarks made by *Dumas* (*h*) on the changes of the features of the face, as signs in disease, were interesting. *Joh. Löw* (*i*) represented the urine as an important sign, but chiefly from extravagant philosophical ideas. The remarks of *J. A. Elsasser*, (*k*) on the swelling of the parotids in acute diseases, were more important.

Morbid anatomy, a very useful assistant to pathology, was cultivated successfully, and partly upon new principles. In Germany, we must consider *P. F.* and *J. F. Meckel* as the most intelligent masters, promoters, and founders of this science. The former left behind him the first part of the Journal for anatomical varieties, (*l*) in which single observations upon the diseases of the uterus and urinary organs occur; he also caused and promoted *Voigtel's* manual. (*m*) But his son's work, with the same title which we have already mentioned, has acquired the reputation of being classical by the admirable elucidation of the idea that congenital malformations are, in a great measure, to be explain-

---

a) Ueber Kranken-Examen. Rinteln, 1806. 8.

b) Annalen, B. 3. S. 1—18.

c) Allgemeine mediciniſche Zeichenlehre. Leipzig, 1812. 8.

d) Ueber die Bedeutung der Zeichenlehre in der Heilkunde. Berlin, 1810. 8.

e) *Gaillon* im Journ. de Sedillot, Tom. XLI. Août.

f) Journ. de Sedillot, Tom. XXXII. Juin, Juill. Tom. XXXIII. Dec. Tom. XXXIV. Janv. Av. Tom. XXXV. Juin. Tom. XXXVII. Janv. Tom. XXXVIII. Mai.

g) Mém. sur la question proposée par la Soc. de Med. de Lyon: Quelles ſont les ſignes, que peut fournir la langue? Toulon, 1808. 8.

h) Journ. de Sedillot, Tom. XXXIX. Dec.

i) Ueber den Urin, als Zeichen. Landshut, 1809. 8.

k) Diss. de natura parotidum malignarum in morbis acutis. Tubing. 1809. 8.

l) Feinere und patholog. Anatomie. Halle, 1805. 8.

m) Handbuch der pathologischen Anatomie. B. 1—3. Halle, 1802—1805. 8.

ed from the process of development in the embryo being progressive; and by the sound criticism of our previous information. Nor is *A. W. Otto* (*a*) without merit. *G. Fleischmanns* (*b*) has also acquired considerable praise by his explanation of malconformations. *Jos.* and *Charles Wenzel* (*c*) ascertained the morbid changes of the pituitary and pineal glands in the brains of epileptic subjects, and published excellent observations on the fungous excrescences of the dura mater. (*d*) *J. H. F. Autenrieth* and *J. F. Pfleiderer* (*e*) described a case of difficult deglutition, in consequence of the origin of the right subclavian artery on the left side, and its passing upwards to the right, between the œsophagus and the spine.

In France there appeared a capital work by *Portal*, (*f*) full of solid observations on morbid conformations in the structure of the body. In England, *C. Bell's* (*g*) admirable engravings to elucidate morbid anatomy have lately been published, as well as *W. Farre's* (*h*) observations on the diseases of the liver; upon which subject, and the diseases of the spleen, *Benj. Rush* (*i*) laid open the treasure of his experience. Among the Italians, *A. J. Testa* (*k*) deserves especially to be named, whose work on the diseases of the heart contains many important additions to pathological anatomy. *Flor. Caldani* (*l*) also published some interesting observations.

The laws of pathology itself were, during this period, examined with less partiality than formerly, as it was universally acknowledged, at least in Germany, that disease, as an affection of life, can only have its seat in the living parts, diversified according to the various systems of the body, but that the mechanical and chemical derangements cannot be overlooked, in explaining the whole of the diseased state.

The limited dynamic views of the school of excitement were already revived by *W. A. Ficker*, (*m*) and, in the division of animal

---

a) Handb. der patholog. Anatomie. Bresl. 1814. 8.

b) De vitiis congenitis circa thoracem et abdomen. Erl. 1810. 4.

c) Beobachtungen überden Hirnanhang fallsüchtiger Personen. Mainz, 1810. 8.

d) Uber die schwammigen Auswüchse auf der äussern Hirnhaut. Mainz, 1811. fol.

e) Diss. de dysphagia lusoria. Tubing, 1806. 8. *Reil's* Archiv, B. 7. S. 145. fol.

f) Cours d'anatomie médicale. Tom. I.—V. Paris, 1805. 8.

g) Engravings from specimens of morbid parts. Lond. 1813. fol.

h) Morbid Anatomy of the Liver, P. I. Lond. 1813. 4.

i) Medic. and Phys. Journ. Vol. XVI. Sept. 1806, p. 193. f. Samml. für prakt. Aerzte, B. 23. S. 517. f.

k) Delle malattie del cuore, Vol. I.—III. Bologna, 1811. 8.

l) Memor. della soc. Ital. Vol. XII. P. 2.

m) Aufsätze und Beobachtungen mit jedesmaliger Hinsicht auf die Erregungstheorie. B. 2. Paderborn, 1806. 8.

life into three degrees, only that developed that reproduction repeats itself in all structures. *J. Brown's* works were again published in 1806, in three volumes, at Frankfort, by *A. Röschlaub*; and *J. J. Kausch* endeavoured to correct the idea of sthenic and asthenic disease,(a) and to determine more precisely the relation of the powers. (b) *J. R. Giese*(c) showed himself more prejudiced, as he only rejected the unity and indivisibility of excitability, but adhered to the Brunonian dichotomy. *Fr. Hildebrandt*(d) examined more accurately the different ideas of debility.

It appears, from the example already quoted of *J. Tommasini*, that the Italians had previously begun to have a clear perception of the weak points of the system of excitement; and hence *Francis Fanzago*,(e) in investigating each disease, takes three points of view; 1. the diathesis or dynamic relation; 2. the pathologic condition, or local material changes; and, 3. the form of the disease, or aggregate of the symptoms. The idea of direct debility, which *Jos. Giannini*(f) had endeavoured to correct by supposing relaxation of the nervous, and excitement of the other systems, was admirably elucidated by *C. C. F. Jäger*,(g) and a fluctuation, an unequal distribution through the nerves of the imponderable principles assumed as the most frequent cause of what is called debility. This idea is also followed out by *J. F. Ackermann*,(h) although, according to his earlier chemical views, he still makes oxygen play the principal part. *J. G. Schäffer* (i) had previously brought into view the diversity of debility in the different systems of the body. Also *A. H. F. Gutfeldt* (k) had investigated the idea of debility successfully, but *K. Wolfart* (l) by no means. *Wagner* (m) and *J. G. F. Henning* (n) inquired into the morbid irritability and idiosyncrasy connected with debility.

With these views the opinion of original diseases of the fluids, maintained in the preceding period, was incompatible.

---

a) *Hufeland's* Journ. B. 27. St 2.

b) *Hufeland's* Journ. Bd. 30. St. 1, 2.

c) Grundzüge zu einem System der Heilkunde. Münst. 1811. 8.

d) Abhandl. der phys. med. Societät in Erlangen, B. 2.

e) Saggio sulle differenze essenziali delle mallatie universali. Padov. 1809. 8.

f) Della natura delle febbri, Vol. I. II. Milano, 1805—1809, 8.

g) Ueber die Natur und Behandlung der krankhaften Schwäche des menschl. organismus. Stuttg. 1807. 8.

h) De construendis, cognoscendis, et curandis febribus. Heidelb. 1809. 8.

i) *Horn's* neues Archiv, B. 4. 1807.

k) *Hufeland's* Journ. Bd. 27. St. 2—4.

l) Im neuen Asklep. Hft. 1.

m) *Hufeland's* Journ. B. 33. St. 5.

n) Ueber die kränkliche Laune. Zerbst, 1810. 8. Ideen über Idiosynkrasie, Antipathie und kränkliche Reizbarkeit. Stendal, 1812. 8.

They found, indeed, a defender in *H. M. Marcard*,(*a*) but *A. F. Hecker*, as he had done on a former occasion, (*b*) subjected them to an impartial examination, (*c*) as did also *A. Henke*. (*d*)

There are, indeed, several remarkable facts, especially those collected by *A. J. Testa*(*e*) and *P. H. Nysten*,(*f*) which seem to prove that, at least in asthma, air passes over into the blood, or that gases may evolve themselves in the blood.

With this the doctrine of contagion is connected. Upon this subject the first correct views were given by *J. D. Brandis*,(*g*) partly by a comparison of the propagation of disease by contagion with the process of generation, and partly by investigating the multiplication of the matter of contagion, as an imponderable substance. *A. W. Beyer* (*h*) had already maintained, that the matter of contagion was of the nature of hydrogen; and *F. C. Bach* (*i*) taught it more circumstantially, as well as the mode of acting of contagious matter, in the manner of imponderable substances, and the relation of epidemic with contagious diseases. *Fr. Schnurrer* (*k*) published very interesting conclusions upon the nature of epidemic and contagious diseases. The stationary epidemics were by him considered as diseases of development in particular people and races, and their being independent of the weather and constitution of the air was proved. Several important observations on the infection of particular diseases were also made. Thus *Alibert* (*l*) thought himself obliged to deny the contagious nature of the poison of cancer, because he had inoculated himself with impunity. On the other hand, the communication of the carbuncle from cattle to the human subject was observed. (*m*) That syphilis was communicable to animals, especially dogs, *S. Zeller von Zellenberg* (*n*) thought he had observed; and *C. Ruggieri* (*o*) asserted, that local venereal symp-

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a) Versuch einer Beantwortung der Aufgabe: Welche besondere Krankheiten und Fehler der Feuchtigkeiten und Säfte finden im menschlichen Körper wirklich Statt? Utrecht, 1810. 8.

b) Neues Journ. der Erf. St. 17, 18.

c) Annalen, B. 3. S. 430.

d) Ueber die Vitalität des Bluts und primaire Säftekranheiten. Berl. 1806. 8.

e) Delle malattie del cuore, Vol. III.

f) Recherches de physiologie et de chimie pathologiques. Paris, 1811. 8.

g) Pathologie. Hamb. 1808.

h) Momenta quaedam de contagiis diss. Gott. 1805. 8.

i) Grundzüge zu einer Pathol. der ansteckenden Krankheiten. Halle, 1810. 8.

k) Materialien zu einer allgemeinen Naturlehre der Epidemieen und Contagien. Tübing. 1810. 8.

l) Salzb. med. Zeit. 1809. B. 1. S. 190.

m) *Hufeland's* Journ. B. 32. St. 1.

n) Abhandl. über die ersten Erscheinungen venerischer Local-Krankheitsformen und deren Behandlung. Wien, 1810. 8.

o) Storia di una blennorea prodotta da lambimento canino. Venez. 1809. 8.

toms had arisen from a dog merely licking the female parts of generation. *A. F. Hecker* (*a*) imagined he could prove that syphilis becomes strangely degenerated, and even communicates itself without sexual connexion. *Larrey* (*b*) is also convinced that he observed in the East its degeneration into a leprosy, which can be cured by cinchona, camphor, and opium, without the aid of mercury. A singular form of syphilis, in which the general symptoms come on at once, without being preceded by local symptoms, was observed at Fiume. (*c*) *Vassal* (*d*) thought he could prove that the contagion of syphilis was communicable to the fœtus in the womb, by the process of nutrition, even when the mother exhibited no apparent symptoms of the disease. *E. Jenner* (*e*) observed several times, that the poison of small-pox was communicated to the child without affecting the mother.

Some experiments seemed to give a better explanation of the manner in which poisons act upon the body. According to *Mangili's* experiments, (*f*) the poison of the viper only produces speedily fatal effects when it is taken up by the blood-vessels, or applied to muscular organs, for its operation is slow when it acts through the absorbents, and it does not prove fatal when directly applied to the nerves. The volatile oil of bitter almonds and laurel water contains Prussic acid, which is found to be a rapid poison when applied to the muscular or sanguiferous system. (*g*) More recently, the body of a self-murderer was examined, who had killed himself with an ounce of spiritous Prussic acid. All the blood was blue-black, smelt strongly of bitter almonds, and was accumulated in the veins. (*h*) *G. F. Jäger* (*i*) made the action of arsenic on organized bodies the subject of his investigation. He proved that oxygen is not predominant in arsenic,—that exposed nerves do not convey the effects of the poison to the body,—but that it operates by the reduction of the power of action, and the excitement of the sensibility.

Climate, and the constitution of the atmosphere, are unquestionably to be considered among the most general and important causes of disease. This subject was thoroughly examined

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a) *Hufel.* Journ. B. 26. St. 4.

b) Denkwürdigkeiten, S. 175, 176.

c) Journ. de Sedillot, Tom. XLII. Sept.

d) Mémoire sur la transmission du virus vénérien de la mère à l'enfant. Paris, 1807. 8.

e) Medic. Chirurg. Abh. der Ges. in Lond. B. 1. Aus dem Engl. Berl. 1811. 8.

f) Sul veneno della vipera. Pavia, 1809. 8.

g) *C. F. Emmert* diss. de venenatis acidi borussici in animalia effectibus. Tubing. 1805. 8.

h) *Horn's* Archiv, 1813. Mai—Dec. 510.

i) Diss. de effectibus arsenici in varios organismos. Tubing. 1808. 8, by *Fr. Schnurrer.* (a) A great many more or less useful medical topographies were also published. Among those relating to Germany, we may enumerate what are mentioned in the note. (*b*) From France we received publications by *Menuret* (*c*) and *Murat.* (*d*) In England, suggestions for the writing of medical topographies were published by *W. Woolcombe*, (*e*) and similar suggestions, in regard to Sweden, were published by *C. Travenfelt.* (*f*)

That the epidemic constitution was independent of the chemical composition of the air, was proved not only by *F. Schnurrer*, as already mentioned, but also by *H. Robertson.* (*g*) *W. Knoblauch* derived the course of general diseases from the involutions and evolutions of life; (*h*) and *C. F. Harles* (*i*) made some interesting observations on the permanent epidemic constitutions. The last mentioned author also applied the science of electricity to the explanation of diseases, (*k*) which was also successfully done by *G. Thouvenel.* (*l*) *Chavassieu d'Audebert* (*m*) investigated moist air, and the exhalations from stagnant water, as a cause of disease. On the contrary, *Th. Sutton* (*n*)

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a) Geograph. Nosologie. Stutt. 1813. 8.

b) *F. A. Memminger's* Versuch einer Beschreibung der Stadt Reutlingen, 1805. 8.
Joh. Schneider's Versuch einer Topographie der Residenzstadt Fulda, 1806. 8.
J. H. Kopp's Topographie von der Stadt Hanau. Frkf. a. M. 1807. 8.
A. F. Noldes medic. und anthropolog. Bemerk. über Rostock und seine Bewohner. Abth. 1, 2. Frf. 1807. 8.
Frank über den Gesundheitszustand des Depart. von Posen, in *Hufeland's* Journ. B. 24. St. 4.
St Beneditsch Topogr. Kunde von der Hauptstadt Grätz. 1808. 8.
Jos. Steiner's Versuch einer medicinischen Topographie vom Landgerichtsbezirk Parkstein und Weyden in der obern Pfalz. Sulzbach, 1808. 8.
Phil. J. Horsch Beobachtungen über die Witterung und die Krankheiten in Würzburg im Jahre 1807. Rudolst. 1808. 8.
Wunderlich's Versuch einer medicinischen Topographie der Stadt Sulz am Neckar. Tübing. 1809. 8.
Z. Wertheim's Versuch einer medicin. Topographie von Wien, 1810. 8.
G. V. Ehrhart's physisch-medicinische Topog. der Stadt Memmingen, 1813. 8.
J. T. C. Bernstein's Topographie von Neuwied, in dessen kleinen medicinischen Miscellen, Frkf. a. Main, 1814. 8.

c) *Menuret's* Essais sur l'histoire Médico-topographique de Paris. Par. 1805. 8.

d) *Murat's* Topog. physique et medicale du territoire d'Aubin. Paris, 1805. 8.

e) Remarks on the frequency and fatality of different diseases. Lond. 1809. 8.

f) *Hufeland's* Journal, Vol. XXXIII. No. 1.

g) General View of the Natural History of the Atmosphere. Edinb. 1808. 8.

h) *Hufeland's* Journ. B. 35. St. 4.

i) Jahrbücher der deutschen Medicin. B. 1.

k) Abhandl. der phys. Med. Soc. in Erlangen, B. 1.

l) Mélanges d'histoire naturelle, de physique et de chimie. Vol. I.—III. Paris, 1807. 8.

m) Des inondations d'hiver et d'été. Paris, 1806. 8.

n) Letters addressed to H. R. H. the Duke of Kent, on Consumption. Lond. 1814. 8.

considered the too dry air of our apartments as the cause of phthisis. *C. C. Haberle* (*a*) subjected the whole of meteorology to a new examination, in which also an important influence on the constitution of the atmosphere was ascribed to its electrical relations. But his attempt to establish meteorology on a sure basis failed, like all those which preceded it. The influence of the moon on the progress of diseases, was newly confirmed by *A. Transieri* (*b*) in a case of asthma. What was formerly ascribed to the constitution of the atmosphere, was referred by *F. L. P. Cerutti* (*c*) to the soil and its exhalations. The autumnal constitutions of several years was described by *G. F. Kletten*, (*d*) under the ancient appellation of atrabilious.

Upon the influence of the passions on the production of disease, we received important contributions, besides others, from *H. J. Mortesan*, (*e*) and especially from *M. A. Petit*, (*f*) in which the influence of the French revolution upon the health was admirably developed. Among the German writings upon this subject, that of *J. G. E. Maass* (*g*) deserves to be mentioned. The oration of *Schiferli* is insignificant. (*h*)

The agency of intestinal worms, as a cause of disease, was examined more completely and scientifically than heretofore. At the head of the works on this subject stands *K. A. Rudolphi's* classical production. (*i*) Besides other things, there is proved in it, that worms do not perforate the intestines, and that they are spontaneously generated in the body. *N. L. Brera's* work (*k*) also contains interesting observations, with several untenable opinions. *J. Reinlein* (*l*) made some insignificant observations on the natural history of the common tape-worm, falsely called Taenia lata. The real Taenia lata was determined by *Bremser* (*m*) to be the botryocephalus of *Rudolphi*. *H. K. L. Lüderssen* (*n*) determined the hydatids more accurately, and de-

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a) Meteorologisches Jahrbuch. Th. 1, 2. Weimar, 1801, 1811. 8. Meteorologische Hefte. St. 1, 2. Weimar, 1810, 1811. 8.

b) *Harle's* Neues Journ. der Ausländ. Literatur. B. 9. St. 2.

c) Collectanea de telluris in organismum animalem actione. Lips. 1814. 4.

d) De constitutione morborum atrabilaria. Witteb. 1808. 4.

e) Traité de l'influence des passions sur la santé. Par. 1805. 8.

f) Essai sur la médécine du coeur. Lyon. 1806. 8.

g) Versuch über die Leidenschaften. Thl. 1, 2. Halle, 1807—1806. 8.

h) Rede über den Einfluss der Gemüthsbewegungen auf Gesundheit und Lebensdauer. Bern, 1808. 8.

i) Entozoorum s. vermium intestinalium historia naturalis. Vol. I. II. Amst. 1808, 1810. 8.

k) Memorie fisico-mediche sopra i principali vermi del corpo umano. Crema, 1811. 4.

l) Animadversiones circa ortum etc. Taeniae latae. Viennae, 1811. 8.

m) Salzb. med. Zeit. 1812. B. 2. S. 237.

n) Diss. de hydatidibus. Gott. 1808. 8.

scribed the acephalocystis, almost the simplest of animals. The Hydatis finna was excellently described by *K. Himly*, (*a*) and *L. de Cärro* furnished some recent information concerning the Filaria medinensis. (*b*)

Urinary calculi, their causes and symptoms were investigated by *Ritter* (*c*) and *Th. Egan.* (*d*) The former tried muriatic acid, and the latter showed that an excess of acid certainly contributed to the generation of urinary calculi. *W. Brande* (*e*) endeavoured to show, that uric acid predominated in nephritic calculi, and that the phosphoric acid was not produced until the stone had fallen into the bladder. The inquiries of *Moscati* and *Allemanni (f)* furnished new results, in regard to the composition of urinary calculi. They found magnesia and silex. The latter was also found by *Wurzer.* (*g*)

Marc (*h*) and *Kopp* (*i*) instituted inquiries into the spontaneous combustion of living bodies. The most recent case narrated by *Filleau* (*k*) requires to be more accurately examined.

In regard to special pathology, many attempts were made to explain the general theory of fevers, but they only furnished new proofs that it is a stumblingblock to the human understanding. *Jos. Giannini's* text-book, (*l*) insignificant as it is, certainly deserves to be preferred to the absolutely useless production of *Reich*, (*m*) in which materialism, without limitation, performs the principal part, and the essence of fever is made to consist in altered secretion and excretion. A purely chemical theory, on the preponderance of oxygen, was advanced by *J. W. A. Frowein*, (*n*) and also by *J. F. Ackermann*, (*o*) although useful ideas concerning the accumulation and exhalation of the imponderable substances (Aura oxygenea, Ackerm.) occur

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a) *Hufeland's* Journ. B. 29. St. 6.

b) *Hufeland's* Journ. B. 37. St. 5, 6.

c) *Hufeland's* Journ. B. 25. St. 2.

d) Medic. and Phys. Journ. N. 90—94. Samml. fur prakt. Aerzte, B. 24. S. 552. f.

e) *Harle's* Neues Journ. der Ausländ. Lit. B. 10. St. 1.

f) Memorie della soc. ital. Vol. XIII. p. 2.

g) *Gehlen's* Journ. B. 2. S. 267.

h) Salzb. med. Zeit. 1809. B. 2. S. 235. f.

i) Ausführliche Darstellung und Untersuchung der Selbstverbrennungen. Frkft. a. M. 1811. 8.

k) Journ. de Sedillot, Tom. XLVI. Mars.

l) Della natura delle febbri. Vol. I. II. Milano, 1805, 1809.

m) Erläuterung der Fieberlehre, B. 1, 2. Berl. 1805, 1806. 8.

n) Was sind Fieber? Elberfeld, 1806. 8.

o) De construendis, cognoscendis, et curandis febribus. Heidelb. 1809. 8.

as causes of aggravation. Similar ideas, concerning the origin of the cause of fevers, were already advanced by *F. C. Rüdiger.* (*a*) *G. F. Parrot* (*b*) considered fever as a calorific process, and demonstrated the real increase of temperature of the surface in the febrile heat. The doctrine of fever was, according to the principles of the theory of excitability, given by *E. Horn*; (*c*) and *A. Henke* explained the doctrine of crises. (*d*) *J. A. Walther's* explanation of metastasis (*e*) is insignificant; but that of *Fr. Hufeland*, (*f*) concerning general and local diseases, is very interesting. A good and learned work by *J. H. Rahn* (*g*) was published after his death.

Upon intermittent fever we have had a good practical work from *J. Richard.* (*h*) *Kleefeld* (*i*) described the remarkable conversion of an intermittent epidemic into a partially remittent typhous fever; and *Minderer* (*k*) described the true hemitritaeus, as it occurs in the southern provinces of Russia. *Audouard's* theory of intermittent fever (*l*) is as little to be commended as his method of cure.

Minderer made some interesting observations on the plague, (*m*) on which subject *Larrey* (*n*) has also made some observations, and *C. Mayer* given a theory. (*o*) The last showed the coincidence of the plague of the East with that of the West, or the yellow-fever, which had indeed ceased to rage in Europe, but of which sporadic traces still occurred. (*p*) To the later writings of German physicians, who considered the nature of this disease from the observations of others, belong the treatises of *C. F. Fischer*, (*q*)

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a) Diss. de natura et medela morborum nervicorum. Tubing. 1806. 4.

b) Ueber den Einflus der Physik und Chemie auf die Arzneykunde. Dorpat, [1807.] 4.

c) Anfangsgründe der med. Klinik. Abth. 2. Erf. 1807. 8.

d) Darstellung und Kritik der Lehre von den Krisen. Nürnb. 1806. 8.

e) *Hufeland's* Journ. B. 32. St. 2.

f) *Hufeland's* Journ. B. 23. St. 1.

g) Fieberlehre. Zürich, 1814. 8.

h) De insidiosa quarundam febrium intermittentium et remittentium natura. Lond. 1807. 8.

i) *Hufeland's* Journ. B. 29. St. 5.

k) *Hufeland's* Journ. B. 28. St. 2.

l) Nouvelle therapeutique des fievres intermittentes. Paris, 1812. 8.

m) *Hufeland's* Journ. B. 24. St. 2.

n) Denkwürdigkeiten, S. 96—139.

o) Specimen practicum de remediis efficacissimis in morbis contagiosis et pestilentialibus. Viennae, 1806. 8.

p) *Larrey's* Denkwürdigk. S. 140. *J. C. Renard* in *Hufel.* Journ. B. 24. St. 2.

q) *Hufeland's* Journ. B. 21. St. 4.

C. F. L. Wildberg, (*a*) an anonymous publication at Vienna, (*b*) *A. F. Marcus's* contributions, (*c*) and the works of *K. Wolfart,* (*d*) *J. H. Kopp,* (*e*) and *J. J. de Bartoldi.* (*f*) Of much more importance was the information furnished by those who saw the disease themselves; *Fr. Torrigiani,* (*g*) *L. Valentin,* (*h*) *Dalmas,* (*i*) *B. Rush,* (*k*) and especially *A. V. Humboldt,* (*l*) and *A. M. T. Savaresi.* (*m*)

The nervous or typhous fever, aggravated by almost continual wars in Europe, and constituting a true *Pestis Bellica,* was so repeatedly investigated during this period, its nature so variously determined, and its method of cure so differently laid down, that we must necessarily be convinced that the epidemics were not only perfectly different at different times, but that the same epidemic varied in different countries.

The *Pestis Bellica* appeared in 1805, during the campaign of the French in Austria, after the battle of Austerlitz, upon which *Larrey* (*n*) has given us some not uninteresting observations. Upon the epidemic typhus which accompanied the war of 1806–7, so unfortunate for Germany, *Chardel* (*o*) and *Fr. Jahn* (*p*) made some practical observations. The former found ipecacuan, the latter calomel, particularly serviceable. *P. G. Jördens* (*q*) enriched the symptomatology of the disease with some valuable additions. Nor should we overlook *M. v. Willich's* (*r*) observations on the appearance of that fever at Rugen. *C. W. Hufeland's* valuable remarks (*s*) deserve particu-

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a) Ueber das gelbe Fieber. Berl. 1805. 8.

b) Beschreibung des gelben Fiebers für österr. Aerzte und Wundärzte. Wien, 1805. 8.

c) Magazin für specielle Therapie, B. 2. St. 1.

d) Das Wesen des gelben Fiebers. Berl. 1805. 8.

e) Versuch einer Darstellung des gelben Fiebers. Frkf. am M. 1805. 8.

f) La febbre gialla. Venez. 1805. 8.

g) Della febbre gialla. Pisa, 1805. 8.

h) Abhandl. über das amerikanische gelbe Fieber. Aus dem Franz. von K. C. G. Amelung. Berl. 1806. 8.

i) Recherches historiques et médicales sur la fièvre jaune. Paris, 1805. 8.

k) Inquiry into the various sources of the usual forms of summer and winter diseases in the United States. Philadelphia, 1805. 8. *Hufeland's* Journ. B. 22. St. 3.

l) Voyage en Amérique, Vol. III. p. 750. Harles Jahrb. B. 2. S. 8.

m) De la fièvre jaune. Naples, 1809. 8.

n) Denkwürdigk. S. 279.

o) Journ. de Sedillot, Tom. XXXIII. Oct.

p) *Hufeland's* Journ. B. 23. St. 1.

q) *Hufeland's* Journ. B. 55. St. 3.

r) *Hufeland's* Journ. B. 30. St. 6.

s) *Hufeland's* Journ. B. 26. St. 3.

larly to be read. It was in the same year that *H S. Jackson* (*a*) observed in Gibraltar, that inflammation of the brain often supervened in typhus. The numerous complications which occurred in this epidemic (in Germany, 1806–7) were detailed by *A. F. Hecker*, (*b*) *G. A. Spangenberg*, (*c*) and *F. J. Wittmann*. (*d*) The insidious form which often occurs was particularly noticed by *P. L. Müller*. (*e*)

The war between France and Austria in 1809 produced a similar disease, and we are indebted to *J. V. v. Hildenbrand* (*f*) for the most striking observations, the most impartial and complete inquiry into its nature, and the best directions for its cure and prevention. *Paul Kolbany's* remarks (*g*) also deserve to be noticed with approbation, on account of good pathological observations, and more especially the application of *Currie's* practice. On the contrary, *F. C. Schluitter's* remarks on the appearance of the epidemic at Weimar are insignificant. (*h*)

In 1811, *A. F. Marcus* (*i*) published his theory of the identity of inflammation of the brain with typhus, which, however, he asserted, he had conceived and established in 1806. But neither the ill-managed cases, nor the asserted success of his method of cure, were capable of deceiving impartial judges. *E. Horn* (*k*) ascertained with some precision the difference between typhus and inflammation of the brain; and it was mere prejudice which made *Marcus* consider *Horn's* observation of accumulation of water in the ventricles of the brain after death, from nervous fever, (*l*) as a proof of the truth of his theory. (*m*)

In the depopulating epidemic which accompanied the campaigns of 1813 and 1814, and which in some places had undergone a total change in its nature, *Marcus's* theory obtained occasionally more support. He considered as a proof of its truth, the appearances discovered by dissection in the

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a) Observations on the epidemic diseases which lately prevailed at Gibraltar, 1806. 8.

b) Ueber die Nervenfieber, welche in Berlin 1807. herrschten. Berlin, 1808. 8.

c) *Horn's* Arch. 1809, B. 2.

d) Die neuesten am Rhein herrschenden Volkskrankheiten. Mainz, 1811. 8.

e) Abhandl. über das schleichende Nervenfieber. Duisburg, 1808. 8.

f) Ueber den ansteckenden Typhus. Wien. 1810. 8.

g) Bemerkungen über den ansteckenden Typhus, der 1809–10 in Pressburg herrschte. Pressb. 1811. 8.

h) *Hufeland's* Journ. B. 32. St. 3.

i) Ephemeriden der Heilkunde, B. 1. Hft. 1.

k) Archiv, 1812. Sept.

l) Archiv, 1810. B. 2. S. 267.

m) Ephemer. der Heilkunde, B. 1. Heft. 2.

body of *J. P. Ritter*, who died of the typhus, because the vessels of the brain were distended with blood, the medullary part red, and water collected on the basis of the skull. (*a*) His opponent, *A. Dorn*, (*b*) set out with the principles of the theory of excitement, and, therefore, could not obtain any support from impartial judges. Still less to be approved was the controversial production of *P. J. Weintz*, (*c*) because in it the liver was just as erroneously assumed as the seat of the disease, and the reasonings about its nature were still more unintelligible. More successful, and less partially written than usual, was *Marcus's* next work. (*d*) Out of 113 typhous patients he lost only 12. *A. Röschlaub's* controversial pamphlet (*e*) is entirely devoid of interest for science, and merely a monument of personal enmity. Equally reprehensible is *Marcus's* reply. (*f*) Another production of the same kind, by *M. W. Schneemann*, (*g*) is very poor. The author will not even admit the pestis bellica to be typhus; therefore the reply by *Stranz* is well founded. (*h*) *P. Reuss* (*i*) and *Speyer* (*k*) agree entirely with *Marcus*; and the physicians of Mayence, *Wittmann* and *Renard*, acknowledge the inflammatory nature of the pestis bellica. (*l*) *P. K. Hartmann* (*m*) and *J. J. Reuss* (*n*) likewise agree that the disease is preceded by an inflammatory process in the mucous membranes, which, according to the latter, extends to the tunica arachnoidea of the brain, and, according to the former, generates contagion, when the mucous membranes are affected with gangrene. But the dissections on which *Reuss* relies were found by *E. Horn* (*o*) and *N. Friedreich* (*p*) to be quite

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a) *A. F. Marcus* über den jetzt herrschenden ansteckenden Typhus. Bamb. 1813. 8.

b) Bemerkungen über die Schrift des *D. Marcus*, den herrschenden contagiösen Typhus betreffend. Bamb. 1813. 8.

c) Berichtigung einiger Sätze in der Schrift des *Hrn. Marcus* über den Typhus. Bamb. 1813. 8.

d) Beleuchtung der Einwürfe gegen meine Ansichten über den herrschenden ansteckenden Typhus. Bamb. 1813. 8.

e) An *A. F. Marcus* über den Typhus. Landsh. 1814. 8.

f) An *A. Röschlaub* über den Typhus. Bamb. 1814. 8.

g) Beyträge zur Erkenntniss und Cur des ansteckenden Typhus. Bamb. 1814. 8.

h) An *M. W. Schneemann* über den ansteckenden Typhus. Bamb. 1814. 8.

i) Bemerk. über den ansteckenden Typhus. Würzb. 1814. 8.

k) Ephemeriden der Heilk. B. 3. St. 4.

l) Salzb. medic. Zeit. 1814. B. 3. S. 350.

m) Die Theorie des ansteckenden Typhus. Wien, 1812. 8.

n) Das Wesen der Exantheme. Erster Theil. Das Fleckenfieber ode d Kriegspest. Aschaffenburg, 1814. 8.

o) Erfahrungen über die Heilung des ansteckenden Typhus. Berl. 1814.

p) Ueber den Typhus und die entzündungswidrige Methode dagegen. Würzb. 1814.

otherwise. Often there was no obvious deviation from the natural state, often the vessels of the brain were full of blood, but very rarely was there any mark of inflammation. The insufficiency of dissection, to ascertain the nature of typhus, was explained in a special treatise by *N. Friedreich.* (*a*) *E. Horn* (*b*) also made some valuable observations concerning the duration of the period of infection, and upon the transition of typhus into apoplectic fever. *C. A. Wienhold* (*c*) refuted admirably the pretended inflammation, by proving that the state of the nerves in the bodies of those who died of typhus, was exactly the reverse of what it is where the nerves are inflamed. In a practical point of view, *Hufeland's* essay on this pestilence (*d*) deserves particular notice. Also *G. v. Wedekind* (*e*) has published one of the most important and impartial inquiries into the nature of the disease. He assumes in typhus an erysipelatous inflammation. *J. C. G. Jörg* (*f*) deserves to be read, on account of the investigation of the influence of moral causes upon the disease. *S. Wolf* (*g*) describes the measly eruption in the beginning, and notices the muscular debility which is here truly remarkable. *J. F. Ackermann* (*h*) has written entirely in the spirit of his well known theory. *G. A. Richter* (*i*) has strikingly delineated the dreadful form of the disease in Torgau, during its siege. The productions of *Eisenlohr* (*k*) and *G. Wedemeyer* (*l*) are insignificant. *Wacker* (*m*) advanced views derived from the new philosophy, without any use; and the same thing had been previously done by *H. A. Göden.* (*n*) Similar nonsense, delivered with equal pretensions, is to be found in *K. Wolfart's* newest

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a) Werth der Leichenöffnungen zur Bestimmung: Typhus sey Hirnentzündung. Würzb. 1814. 8.

b) Archiv, 1813. Mai—Dec.

c) Kritische Blicke auf das Wesen des Nervenfiebers. Dresd. 1814. 8.

d) Journ. B. 36. St. 6.

e) Blicke in die Lehre von den Entzündungen und von den Fiebern überhaupt, von den Gehirn-Entzündungen und dem ansteckenden faulen Nervenfieber insbesondere. Darmstadt, 1814. 8.

f) Das Nervenfieber im J. 1813. Berl. 1814. 8.

g) *Hufeland's* Journ. B. 39. St. 2.

h) Von der Natur des ansteckenden Typhus. Heidelb. 1814. 8.

i) Medicinische Geschichte der Belagerung und Einnahme der Festung Torgau. Berl. 1814. 8.

k) Uber die Natur und Behandlung des epidemisch-contagiösen Nervenfiebers. Carlsruhe, 1814. 8.

l) Uber den ansteckenden Typhus. Halberstadt, 1814. 8.

m) Uber den ansteckenden Typhus und die herrschenden Krankheiten. Dillingen, 1814. 8.

n) Ueber Natur und Behandlung des Typhus. Berl. 1811. 8.

theory of typhus; (*a*) where, besides other things, the (invisible) nervous glands are said to be the seat of the matter of pestilence, and the greatest light upon the subject is expected from mesmerism, as it is called.

The theory of inflammation did not acquire, during this period, any remarkable elucidation or addition, except *Bened. Hofrichter's* (*b*) chemical explanation from the increase of carbon. The opinion that the capillary vessels, excited to arterial action, were the seat of inflammation, was almost general, when now *Marcus* (*c*) advanced the opinion, that inflammation is 'the seizing of the electrical *moment* in the dimensions;' which figurative expression must be thus translated: The arterial system, on account of its dendritic expansion, resembles positive electricity, but the electricity disappears in the indifferent capillary vessels and in the absorbents; that is, in the reproductive system, and yields to simple attraction = Magnetism. Hence it is, that when the capillaries enter into the sphere of action of the arteries; or, what is the same thing, when the activity of the arteries communicates itself to the capillaries, the electricity is converted into magnetism. Now, in so far as irritability or contractility predominates in the arteries, is inflammation always a contraction of the arteries. This is an exposition of *Marcus's* theory, by which he is made to coincide with *P. F. Walther* (*d*) and *Newmann.* (*e*) But *Marcus* will not admit of this coincidence, and more recently (*f*) abides by his metaphorical expressions.

When we read *Röschlaub's* pretended explanation of inflammation, (*g*) we seem to be carried back to the latter half of the sixteenth century. 'The fiery life plays into the material corporality, and endeavours to form a proper body to itself.' As little common sense will be found in *H. A. Göden's* theory; (*h*) according to which, the inflammatory nature consists in the fierceness, in the unbounded egotism of the irritable *moment*, and in the corruption and acrimony of the matter.

More interesting are *F. v. P. Gruithuisen's* microscopical in-

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a) Neues Asklep. 1814. Hf. 2.

b) Versuch über das Entzündungsfieber und die Entzündung. Bresl. 1806. 8.

c) Entwurf einer speciellen Therapie. Thl. 1, 2. Nurnb. 1807, 1810. 8. Jahrbücher der Medicin als Wissenschaft, B. 3. Hft. 1.

d) Physiologie, B. 2. Abh. aus dem Gebiete der prakt. Medicin. Landsh. 1810. 8.

e) *Hufeland's* Journ. B. 23. St. 4.

f) Ephemer. der Heilkunde, B. 2. Heft. 3.

g) Magaz. zur Vervolk. der Heilk. B. 10. St. 2, 3.

h) Die Theorie der Entzündung. Berl. 1811. 8.

quiries, (*a*) by which the seat of inflammation is proved to be in the capillary vessels; and *P. J. Horsch's* thoughts, (*b*) in which *Marcus's* theory is made more intelligible. *J. Meyer* published a learned and profound history of inflammations. (*c*) The latest work upon this subject, by *K. H. Dzondi*, (*d*) does not bring us one step nearer to its knowledge. The capillary vessels are here called the plastic system, in which the inflammation has its seat, and is perverted for the production of new matter. The causes of inflammation are divided into quantitative and qualitative; and, among the latter, contagion and miasmata are enumerated.

Foreigners confined themselves more to the phenomena and consequences of inflammation, as *J. Thomson*, (*e*) and *A. J. Testa*; (*f*) or, like *F. J. V. Broussais*, (*g*) they continued to consider the capillary vessels to be the seat of inflammation, and endeavoured to elucidate the nature of individual inflammations by morbid dissections.

Some good remarks on the inflammation of the viscera of children were made by *C. F. Harles*. (*h*) He was also induced, by the translation of *Brera's* essay on the inflammation of the spine, (*i*) to collect several observations on that subject. (*k*) But *Baynton's* latest work, (*l*) though indeed more of a surgical nature, could not be known to him.

Inflammation of the brain was a frequent subject of investigation, not only because it often occurred along with the pestis bellica, and was even confounded with it, but because it not unfrequently terminates in an accumulation of water in the ventricles of the brain, or between its membranes. The morbid conditions of the glands and lymphatics, under which, collections of lymph or serum take place in the brain, were investigated by the brothers *Wenzel* (*m*). An anonymous writer published a valuable contribution to the diagnosis of hydrocephalus, by dis-

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a) Salzb. medic. Zeit. 1811. B. 2. S. 299.

b) Annal. der clinisch-technischen Schule, Heft. 2. Rudolst. 1810.

c) Kritische Geschichte der Entzündungen. Th. 1. Berl. 1812. 8.

d) De inflammatione aphorismorum Lib. 1. Hal. 1814. 8.

e) Lectures on Inflammation. Edinb. 1813. 8.

f) Delle malattie del cuore. Vol. I.—III. Bologn. 1811, 1812.

g) Histoire des phlegmasies ou Inflammations chroniques. Tom. I. II. Paris, 1808. 8.

h) Einige praktische Bemerkungen über innere Entzündungen bey Kindern. Nürnb. 1810. 4.

i) Della rachialgite; Atti dell' acad. di Livorno, Vol. I.

k) Jahrbücher der Deutschen Med. u. Chir. B. 2. Heft. 2.

l) Account of a successful method of treating diseases of the spine. Lond. 1813. 8.

m) Bemerkungen über die Hirnwassersucht. Tübing. 1806. 4.

tinguishing it from symptoms produced by worms. (*a*) *A. Mathey* and *Laennec* do not conceal the difficulty of the diagnosis, especially in regard to the state of the pupil. (*b*) *F. W. Neggenfind's* observation of the membrane-like unfolding of the brain in a case of chronic, but not congenital hydrocephalus, (*c*) was interesting; and confirmed by *Rasori*. (*d*) *J. C. Cheyne* (*e*) rendered the subject more intricate, as he considered cases of accumulation of blood as belonging to this disease. *L. Formey* (*f*) gave an excellent history of this affection, founded on experience, in which several signs hitherto neglected are pointed out. *Heineken's* essay (*g*) deserves to be read; and also that of *Jos. v. Portenschlag-Ledermeyer;* (*h*) although the latter extends his idea of the disease too far, and includes every case in which fluid is found in the ventricles on dissection. The diagnosis is enriched by the remarks of *E. Löbenstein-Löbel*, (*i*) *W. F. Dreyssig*, (*k*) *J. C. Smyth*, (*l*) and *J. Milman Coley*. (*m*) *M. Baillie's* observation of a chronic hydrocephalus, in a man 56 years old, in whom there was no other essential symptom than palsy of the limbs, is important. (*n*)

No disease of the human body set so many pens in motion, during this period, throughout the civilized world, as the *angina membranacea*, almost universally denominated by its English name *Croup;* not merely because it has become more common, but because the tyrant of the world allotted an extraordinary prize for the best treatise on this disease, by which he had lost one of his favourites. This was done on the 4th of June 1807. Before this, *A. H. F. Gutfeldt* (*o*) had given a correct

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a) Edinb. Med. and Surg. Journ. Vol. I. 1806. p. 52.

b) Journ. de Corvisart, 1806, Juin.

c) *Hufeland's* Journ. B. 24. St. 1.

d) Giorn. della soc. med. di Parma, Vol. II. N. 4. *Harle's* Journ. der ausländ. Lit. B. 10. St. 1. S. 186.

e) Versuch über den acuten Wasserkopf. Aus dem Engl. von A Müller. Bremen, 1809, 8.

f) Von der Wassersucht der Gehirnhöhlen. Berlin, 1810. 8.

g) *Hufeland's* Journ. B. 32. St. 3.

h) Ueber den Wasserkopf. Wien, 1812. 8.

i) Die Erkenntniss und Heilung der Gehirn-Entzündung, des innern Wasserkopfes und der Krampfkrankheiten im kindlichen Alter. Leipz. 1813. 8.

k) Handwörterbuch der medicinischen Klinik, B. 3. Th. 1.

l) Treat. on Hydrocephalus or Dropsy of the Brain. Lond. 1813. 8.

m) A Practical Treat. on the Remittent Fever of Infants, with remarks on hydrocephalus internus. Lond. 1813. 8.

n) Medic. Transact. publ. by the College of Physic. in Lond. Vol. IV. p. 300.

o) *Horn's* Archiv, 1805. B. 2. Heft. 1.

view of the disease as being an inflammation of the mucous membrane of the trachea, followed by exudation of lymph. *J. C. Desessartz*, (*a*) on the contrary, opposed the inflammatory nature of the affection, and considered it to consist only in a stoppage of the mucous follicles and glands; and in this opinion he was supported by *J. C. F. Caron*. (*b*) By the observations published by *G. Vieusseux*, (*c*) it appeared that very different states of the glottis and trachea were confounded, as he was acquainted with a nervous or spasmodic, a chronic, and a catarrhal croup. This idea, which *Ferriar* had previously adopted, was more developed by *Isaac*. (*d*) Now appeared *J. H. F. Autenrieth's* excellent observations on this disease, (*e*) in which the relation between *Millar's* asthma and the spasmodic form of the disease was explained; and it was also shown that death was sometimes the consequence of the mere palsy of the parts affected. On the contrary, *J. Cheyne* (*f*) and *Latour* (*g*) considered the real croup as a true inflammation.

The committee appointed by the French government for settling the prize-question, published previously the state of our knowledge regarding the disease at that time. (*h*) The first works which appeared in Germany after the prize-question was given out, by *J. W. Hopff*, (*i*) and the translation of an earlier English publication, (*k*) were not very important. More valuable was the remark of *Michaelis*, (*l*) that, in reality, as had been taught by *Autenrieth*, and denied by *Wichmann*, the membranous angina is often complicated with, or degenerates into *Millar's* asthma. *A. F. Marcus's* great pretensions (*m*) accorded very ill with the little addition which his work made to our pathological or therapeutical knowledge of the disease. He called it a catarrh; and considered it to consist essentially in in-

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a) Mém. sur le croup. Paris, 1808. 8.

b) Traité du croup aigu. Paris, 1808. 8.

c) Journ. de Corvisart, 1806. Dec. p. 422.

d) Hecker's Annalen, B. 3. S. 481.

e) Versuche für die prakt. Heilkunde. Tübing. 1807. 8. Th. 1.

f) Pathology of the membrane of the larynx and the bronchia. Edin. 1809. 8.

g) Manuel sur le croup. Paris, 1808. 12.

h) Samml. von Beobachtungen und Thatsachen, die die häutige Bräune betreffen. Uebers. v. *M. M. Freidländer*. Tübing. 1808. 8.

i) Abhandl. über den Croup. Hannau, 1808. 8.

k) *Fr. Home's* Untersuchungen über die Natur, Ursache und Heilung des Croup. Mit Vorrede und Anmerkungen von *J. A. Albers*. Bremen, 1809. 8.

l) *Hufeland's* Journ. B. 28. St. 6.

m) Ueber die Natur und Behandlungsart der häutigen Bräune. Bamb. 1810. 8.

flammation of the glottis and trachea. *A. F. Hecker* laid claim to the praise of having anticipated *Autenrieth's* views, (*a*) and maintained that the disease was sometimes spasmodic, in opposition to *Formey*, who had denied it. (*b*) After this appeared the excellent, almost classical treatise, by *W. Sachse*, (*c*) in which learning, experience, and acuteness, are equally conspicuous. *Heim*, who had criticised *Marcus's* essay, (*d*) drew upon himself, by some opinions, the observations of the acute *J. A. Albers*. (*e*) In this reply, it was doubted that *Heim* was acquainted with real croup, as *Formey* had previously doubted that *Autenrieth* had observed the real disease. Albers also assured us that the exudation of lymph was not always considerable, and that, therefore, the name of angina membranacea was to be rejected. *P. J. Horsch* (*f*) found, in the epidemic which he observed, the symptoms at first catarrhal, then so spasmodic, that the form of *Millar's* asthma appeared, and lastly, perfectly inflammatory. Like *Duval*, he excited the disease artificially in swine, by injecting diluted sulphuric acid, and also by caustic alkali. Almost similar views regarding the irregular form of the disease were advanced by *E. L. Löbenstein-Löbel*. (*g*) But the distinction from *Millar's* asthma is drawn too sharp to be quite correct. The essay of *E. W. Wallich* (*h*) is very insignificant; on the contrary, *D. Neumann's* treatise deserves great praise, especially on account of the parallel between the disease and phthisis trachealis. (*i*)

In the beginning of 1812, the report of the French committee, upon the best answer to their prize-question, appeared. Among 79 answers which were sent in and examined, the prize was conferred upon two treatises by *Jurine* and *J. A. Albers*. (*k*) *Jurine* considers the disease to consist essentially in a catarrhal affection of the mucous membrane, caused by an

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a) Von den Entzündungen im Halse. Berl. 1809. 8.

b) *Horn's* Arch. 1809. B. 3. Heft. 2.

c) Das Wissenswürdigste über die häutige Bräune. Lübeck. 1810. 8. B. 2. Hannov. 1812.

d) *Horn's* Archiv, 1810. B. 1. Heft. 2.

e) Kritische Bemerkungen gegen eine Recension des Hrn. Heim, etc. Bremen, 1810. 8.

f) Annal. der klinisch-technischen Schule, Heft. 2.

g) Erkenntniss und Heilung der häutigen Bräune, des Millar'schen Asthma und des Keichhustens. Leipz. 1811. 8.

h) Dringendes Wort über die jetzige gefahrvolle Kinderkrankheit, die häutige Bräune. Wien, 1811. 8.

i) *Horn's* Archiv, 1811. März.

k) Rapport adressé à S. E. le Ministre de l'interieur sur les ouvrages envoyés au concours sur le croup. Paris, 1812. 8.

inflammatory stimulus, and combined with spasms. It attacks sometimes the larynx, where it is more acute, and sometimes the mucous membrane of the trachea, where it is more chronic. There is a simply spasmodic croup, which intermits, and is either *Millar's* asthma, or constitutes a transition to it. He further derives the disease from catching cold, and ascribes its increasing frequency to the dissemination of the phlegmatic constitution. In *Albers's* treatise, the inflammatory nature of the disease is assumed, but a double form is admitted, the purely inflammatory, and the nervous. The spasm in croup is said to be maintained by the inflammation, and commonly alone interrupts the breathing, and usually intermits. Hence *Albers* will not agree to the marked diagnosis between *Millar's* asthma and the croup, nor does he consider the mechanical obstacle of the exuded lymph or false membrane as the common cause of death. Of the treatises, of which honourable mention was made in the report of the committee, two have been published by *G. Vieusseux* (*a*) and *F. J. Double.* (*b*) The views of the former almost agree with those of *Albers*, and are the result of great experience; the latter does not write from much personal observation, but has produced a learned work, in which, however, the periods of the disease are too nicely distinguished. In the seventh volume of the Dictionnaire des Sciences Medicales, *Royer-Collard* inserted a good treatise on this subject, a German translation of which *Albers* enriched with excellent notes. (*c*) Two other works, one of which was not received in competition for the prize, and the other is not even mentioned in the report, deserve little notice. The first, by *C. F. Cleron*, (*d*) refers only to a recommendation of tracheotomy, and of ammonia as the most certain remedy in croup. Some other observations, (*e*) and a polemical pamphlet by the same author, (*f*) deserve no notice. The second, by *J. Bonnafox de Mallet*, (*g*) represents the disease as a consequence of the coagulation of albumen. A better work was published by *A. Raveneau.* (*h*) Also the observations of *Daney*, (*i*) *Lejeune*, (*k*)

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a) Mémoire sur le croup. Paris, 1812. 8.

b) Traité du croup. Paris, 1811. 8.

c) Abh. über den croup. Aus dem Franz. Hannov. 1814. 8.

d) Programme d'un prix relatif à la trachéotomie dans le traitement du croup. Paris, 1812.

e) Journ. de Sedillot, Tom. XLV. Nov.

f) Réfutation du mémoire de la clinique chirurgicale de *M. Peletan* sur la broncotomie. Paris.

g) Mémoire sur le croup. Paris, 1812.

h) De la Phlegmasie trachéale aigue. Paris, 1809. 8.

i) Journ. de Corvisart, 1811. Févr.

k) Journ. de Corvisart, 1812. Oct.

Lespine, (*a*) *Martin*, (*b*) *Mercier*, (*c*) *Salmade*, (*d*) and *Saissy*, (*e*) deserve to be read. The work of *Giraudy* is almost below criticism. (*f*) In Germany, the distinction drawn by *Wichmann* between croup and *Millar's* asthma was rendered more doubtful, especially by *C. F. Fischer* (*g*) and *A. Henschel*, (*h*) although *A. A. W. Eccard* (*i*) rested a great deal upon the inflammatory nature of the disease. *Eschenmayer* (*k*) has also made some good observations, in reference to *Autenrieth's* ideas.

The true inflammation of the larynx was observed in the body of Dr Pitcairn by *Baillie*, (*l*) and *Farre* (*m*) published at the same time some observations regarding it.

Among the other phlegmasiæ, *J. Davis* (*n*) and *A. F. Testa* (*o*) published some important observations on the diseases of the heart. The latter described particularly the chronic form and its consequences, and also the inflammation of the vena cava. Examples of this inflammation were described by *Dav. Dundas* (*p*) and *J. Russell*. (*q*) *A. F. Marcus* (*r*) supposed he had discovered pathognomonic signs of the disease in the feeling, as if the blood escaped from the heart into the cavity of the breast, and in the coldness of the limbs. The same author (*s*) represents inflammation of the spleen as not an uncommon disease, occurring under the form of vomiting of blood, and sometimes returning periodically.

Upon puerperal fever, which was almost universally considered as an inflammation of the peritonæum, *J. A. Schmidtmül-*

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a) Journ. de Sedillot, Tom. XXXVII. Févr.

b) Annal. clin. de Montpellier, 1810. Juin.

c) Journ. de Sedillot, Tom. XLIII. Mars.

d) Journ. de Sedillot, Tom XXXII.

e) Journ. de Sedillot, Tom. XXXIX. Sept.

f) De l'angine trachéale. Paris, 1811. 8.

g) *Hufeland's* Journ. B. 37. St. 1.

h) Diss. de asthmatis Millari et anginae polyposae diversitate. Wratisl. 1813. *Horn's* Archiv, 1813. May—Dec.

i) Beobachtung und Heilung der häutigen Bräune. Nürnb. 1812. 8.

k) Die Epidemie des croups zu Kirchheim. Stuttg. 1812. 8.

l) Transact. of a Soc. for improvement of Medic. and Chirurg. knowl. Vol. III. p. 276. s. Medical and Phys. Journ. 1809. June.

m) Medic. Chirurg. Transact. publ. by the Medic. and Chirurg. Soc. of Lond. Vol. III. p. 84.

n) Inquiry into the symptoms of carditis. Lond. 1808.

o) Delle malattie del cuore. Vol. II.

p) Med. Chir. Abhandl. der Med. Chirurg. Gesellsch in London, übersetzt von Osann. Berl. 1811. 8.

q) Edinb. Medic. and Surg. Journ. No. 37. 1814. Jan.

r) Ephemer. der Heilk. B. 2. Heft. 1.

s) Ephemer. der Heilk. B. 3. St. 1.

ler (*a*) made some not very important observations. The cases described by *Horn* (*b*) were purely inflammatory. Also *L. J. Boer's* observations, (*c*) both upon this disease, and upon the mistaken inflammation of the uterus, deserve to be mentioned with praise. Upon an epidemic puerperal fever which occurred in Heidelberg, *F. C. Nägele* (*d*) and *C. F. Bayrhoffer* (*e*) published their observations. The form of the disease which *J. Armstrong* observed (*f*) was purely inflammatory.

Upon the water canker of the lip, which occurs frequently in Old Brandenburgh, and its cure by muriatic acid, we got some good observations by *Siebert*, (*g*) and others, also good, upon the cancer of the lip in general, by *J. C. Stark.* (*h*)

We come next to the eruptive diseases. Their general theory was treated of, usefully and acutely, by *C. W. Hufeland*, (*i*) and also by *A. F. Marcus*, (*k*) but partially in regard to their inflammatory form. *D. G. Kieser* (*l*) considered them only as effects of development, an idea previously advanced in regard to the small-pox by *L. J. C. Mende.* (*m*) Beneath all criticism is the work of *Fr. v. Dobscha.* (*n*) For the knowledge and diagnosis of these diseases, advantage may be derived from the elaborate works of *Rob. Willan* (*o*) and *Alibert*, (*p*) and the systematic descriptions of *Suasso*, (*q*) *J. Wilson*, (*r*) and *Th. Bateman.* (*s*)

Among the acute eruptive diseases, scarlatina most engaged the attention of the German physicians, both on account of its

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a) *Horn*'s Archiv. 1808. B. 5. Heft. 1. Handbuch der medic. Geburtshülfe. Th. 2. Frkf. a. Main, 1812. 8.

b) Archiv. 1809. B. 2. Heft. 1.

c) Abhandl. und Versuche geburtshuflichen Inhalts. Bd. 2. Th. 3. Wien, 1806. 8. Naturalis medicinae obstetricae libri VII. Vienn. 1812. 8.

d) Schilderung des Kindbettfiebers. Heidelb. 1812. 8.

e) Bemerkungen über das epidemische Kindbettfieber. Frkf. a. Main, 1812. 8.

f) Facts and Observations relative to the Fever commonly called Puerperal. Lond. 1813. 8.

g) *Hufeland's* Journ. B. 33. St. 6.

h) De cancro labii inferioris. Jen. 1812. 4.

i) Journ. B. 21. St. 4.

k) Entwurf einer speciellen Therapie, B. 3. Th. 1.

l) Uber das Wesen und die Bedeutung der Exantheme. Jena, 1812. 4.

m) *Horn's* Archiv, 1807. B. 1. Heft. 1.

n) De cute et morbis cutaneis eorumque curatione. Jen. 1805. 8.

o) Description and treatises of Cutaneous Diseases, ord. 3. et 4. 1808. 4.

p) Description des maladies de la peau, observées à l'hôpital S. Louis. Liv. 1—8. Paris, 1806—1811. fol.

q) Morborum exanthematicorum descript. specimen. Vol. I. II. Amst. 1809, 1810.

r) Treat. on Cutaneous Diseases. Lond. 1813. 8.

s) Practical Synopsis of Cutaneous Diseases. Lond. 1813. 8.

more frequent occurrence and greater danger, as on account of its form differing from earlier epidemics. *J. Stieglitz* (*a*) endeavoured to show that its greater mortality in modern times depended upon the abuse of the stimulating method of cure, and recommended the cooling treatment. In Suabia, on the contrary, the disease was treated, on account of its obviously typhous character, with stimulating remedies, and it is said successfully. (*b*) Insignificant are the observations of *J. G. Bremser* (*c*) and *J. K. Gutberlet.* (*d*) More important is the distinction established between scarlatina and purpura (Purpurfriesel) by *S. Hahnemann.* (*e*) This difference is, however, ascribed by *G. F. C. Wendelstadt* (*f*) to a degeneration of true scarlatina, and by *D. G. Kieser* (*g*) to a variation of it. The last paper is particularly important for the diagnosis of scarlatina from petechial fever; and there is an equally interesting paper by *E. S. Heims* (*h*) upon the distinction of scarlatina from *roseola* and *rubeola*, in which our attention is particularly directed to the peculiar smell of the perspiration. *A. Dühne* (*i*) endeavoured to propagate entirely false views of the nature of scarlatina, as he looked upon it as a process of development for the production of a new skin, and that it was merely a kind of erysipelatous inflammation, not even succeeded by true desquamation, but that the old skin only made way for the new. Ideas of the same kind were advanced by *G. C. Reich*, (*k*) but with greater pretensions, and the perverted application of physics. At the same time he gives unqualified praise to the cooling treatment, as alone admissible in this disease. The two last mentioned papers were severally criticised by *A. F. Hecker.* (*l*) The diversity of scarlatina, according to the difference of the existing epidemic, was explained by *E. Kletten.* (*m*) Considered

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a) Versuch einer Prüfung und Verbesserung der jetzt gewöhnlichen Behandlungsart des Scharlachfiebers. Hannov. 1807. 8.

b) *J. J. Friz* descriptio morbi epidemici Münchingae grassati. Tubing. 1807. 4.

c) Ein Paar Worte über die Scharlachkrankheit und die Masern. Wien, 1806. 8.

d) *Hufeland's* Journ. B. 23. St. 1.

e) *Hufeland's* Journ. B. 24. St. 1.

f) *Hufeland's* Journ. B. 27. St. 3.

g) *Hufeland's* Journ. B. 34. St. 1.

h) *Hufeland's* Journ. B. 34. St. 3.

i) Einige Beyträge zur Aetiologie und Kur des Scharlach-oder Häutungsfiebers. Leipz. 1810. 8.

k) Neue Aufschlüsse über die Natur und Heilung des Scharlachfiebers. Halle, 1810. 8.

l) Annal. B. 3. Heft. 4.

m) De varia malignitatis ratione in febre scarlatinosa. Lips. 1811. 4.

in this point of view, the contradictions of *Stieglitz*, by *J. P. Vogler*; (*a*) may be easily set aside. The method of the former gained a defender in *T. W. G. Benedict.* (*b*) The remarks of *Bleicher* are insignificant; (*c*) those of *Neumann* (*d*) are better, especially in regard to the diagnosis. The observations of *J. A. Albers* (*e*) serve to adjust the cooling treatment. Lastly, we have to remark, that the scarlatina which *F. Pascalis* observed at Philadelphia *(f)* was quite different from that of Germany, and is scarcely to be called by the same name, as, besides other circumstances, the inflammation of the fauces terminated in suppuration.

Great importance is to be attached to the progress made in the knowledge of the Rose of new-born infants, and the induration of their cellular membrane. *J. C. Renard* related a case successfully treated by musk and camphor; (*g*) and *Nees von Esenbeck* another, in which evacuants were of use. (*h*) *Lodemann* distinguished two kinds of induration, (*i*) one which had its seat in the cellular membrane, the other in the muscles. The Rose of infants was frequently observed by *Horn*, and described under the name of induration of the cellular membrane. (*k*) This mistake is well exposed by *Lodemann*, (*l*) who showed that cold of the whole body, and absence of fever and gangrene, characterize the true induration of the cellular membrane. *C. E. Fischer* (*m*) pointed out the resemblance of the latter disease to the aphthae and tetanus of new-born infants; and *Sybel* (*n*) narrated some remarkable cases, while *W. v. Volsen* (*o*) described the true rose of infants.

In regard to the other exanthematous diseases, the false pox were more accurately determined by *E. L. Heim*, (*p*) and

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a) *Hufeland's* Journ. B. 33. St. 5.

b) Geschichte des Scharlachfiebers, seiner Epidemicen u. Heilmethoden. Leipzig, 1810.

c) *Horn's* Archiv, 1810. Sept.

d) *Horn's* Archiv, 1811. Sept.

e) *Horn's* Archiv, 1812. May.

f) *Harle's* Journ. der ausl. Liter. B. 10. St. 2.

g) *Hufeland's* Journ. B. 22. St. 2.

h) *Hufel.* Journ. B. 25. St. 3.

i) *Hufeland's* Journ. B. 31. St. 4.

k) Archiv, 1810. May.

l) *Hufeland's* Journ. B. 32. St. 1.

m) *Hufeland's* Journ. B. 33. St. 1.

n) *Hufel.* Journ. B. 33. St. 5.

o) *Horn's* Archiv, 1811. Novemb.

p) *Horn's* Archiv, B. 2. Heft. 2. 1811. Sept.

the occurrence of natural small-pox after inoculation, still maintained by *Stieglitz*, (*a*) was ascribed by *Sprengel*, except in a few unquestionable cases, to the false-pox. (*b*)

We have still to notice the history of an epidemic measles by *Roux*. (*c*) *Autenrieth* also made some excellent remarks upon the different forms of scabies in children and adults, and upon the effects of its retropulsion. (*d*)

Upon the hæmorrhagies appeared two essays on the principles of the theory of excitement, by *J. B. Wollkopf* (*e*) and *G. A. Spangenberg*; (*f*) also the continuation of a work of little value by *K. J. Meyer*. (*g*) The treatise of *E. Horn* upon hæmoptysis (*h*) deserves to be read. *J. Lordat* (*i*) treated the subject entirely according to antiquated principles. The causes of hemorrhagies were considered by *K. Hohnbaum* (*k*) to be morbid irritability and debility.

Among the publications on dysentery, that of *W. Harty* (*l*) is particularly to be distinguished, in which the disease is compared with rheumatism, and some good remarks on its inflammatory nature are added. In Germany we had an excellent work by *J. G. Rademacher*, (*m*) and an useful one by *E. Horn*. (*n*) *G. v. Wedekind* (*o*) viewed the disease very partially as erysipelatous inflammation of the rectum, and even adduced ascarides as its cause. What *Marcus* (*p*) has advanced about the inflammation of the mucous membrane, and even of the stuff in the alimentary canal, is insignificant; and also what *E. Speyer* (*q*) has said according to his principles, of the venousness of the organs affected by dysentery. *H. A. Goden*, in his description of an

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a) *Horn's* Archiv, 1809. B. 3. Heft. 2.

b) Instit. pathol. spec. S. 340. f.

c) Traité sur la rougeole. Paris, 1807. 8.

d) Versuche aus der prakt. Heilk. B. 1. Heft. 2.

e) Untersuchungen über die Erscheinung, Bildung und Heilung des Blutausflusses. Th. 1, 2. Leipz. 1803. 8.

f) Ueber die Blutflüsse in medic. Hinsicht. Braunschweig, 1805. 8.

g) Systemat. Handbuch zur Erkenntniss und Heilung der Blutflüsse. B. 2. Wien, 1805. 8.

h) Archiv, 1805. B. 2. Heft. 2.

i) Traité des hémorrhagies. Paris, 1808. 8.

k) Ueber eine besondere Art des übermässigen Monatsflusses. Erlang. 1811. 8.

l) Observations on the Simple Dysentery and its Combinations. Lond. 1805. 8.

m) Libellus de dysenteria. Colon. 1806. 8.

n) Versuch über die Natur und Heilung der Ruhr. Erf. 1806. 8.

o) Ueber die Ruhr, herausgegeben von *Dannenberg*. Frkf. a. Main, 1811. 8.

p) Ephemeriden der Heilk. B. 3. Heft. 4.

q) Versuch über die Natur und Behandlungsart der Ruhr. Nurnb. 1810. 8.

epidemic dysentery in Mecklenburgh, (*a*) and *Fr. Schumacher*, (*b*) have furnished examples of an high sounding empty style.

The urine in diabetes was analyzed by *Dupuytren* and *Thenard*, (*c*) and by *Bostock*. (*d*) Their inquiries differed, in as much as the French chemists examined the urine in the saccharine, and the Englishman in the insipid species. The latter found the urea much reduced in quantity, but also the phosphates of soda and ammonia. By this, as well as by *Rob. Watt's* striking treatment of diabetes, with copious blood-letting, (*e*) *Rollo's* idea of defective animalization as the cause of the disease was much limited.

To the most important, and hitherto most mistaken, diseases, we may reckon the organic diseases of the heart, and the many forms which they may assume. The last period of our history may boast of having produced classical works on this subject, and useful contributions to the knowledge of these diseases. Among the former we may reckon those by *Fr. Zuliani*, (*f*) *J. N. Corvisart*, (*g*) *A. Burns*, (*h*) *A. J. Testa*, (*i*) and *E. L. Kreysig*. (*k*) Useful contributions, especially upon the congenital malconformations of the heart, and the blue disease connected with it, were published by *J. F. Meckel*, (*l*) who considers these malconformations as arising from the formation of the heart being interrupted in its progressive development, and remaining stationary in its early stages; by *C. F. Nasse*, (*m*) *B. M. Seiler*, (*n*) *Standert*, (*o*) *Caillot*, and *Duret*, (*p*) *Marcet*, (*q*)

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a) *Horn's* Archiv, 1812. März.

b) Beytr. zur Nosogenie und Nosologie der Ruhr. Coblenz, 1812. 8.

c) Journ. de Corvisart, 1806. Août. Annal. de chimie, Tom. LIX. n. 175. *Gehlen's* Journ. B. 2. S. 210. Samml. für praktische Aerzte. B. 24. S. 123.

d) Memoirs of the Med. Soc. of Lond. Tom. VI. p. 237. *Gehlen's* Journ. B. 2. S. 195.

e) Cases of Diabetes, Consumption, etc. Glasg. 1808. 8.

f) De quibusdam cordis affectionibus. Brix. 1805. 4.

g) Essai sur les maladies organiques du coeur et les lèsions des gros vaisseaux. Paris, 1806. 8.

h) Observations on some of the most frequent and important Diseases of the Heart. Edinb. 1809. 8. Ubers. von Nasse. Lemgo, 1813.

i) Delle malattie del cuore. Vol. I.—III. Bologn. 1811. 8. Uebers. von Sprengel. Halle, 1813. 8.

k) Die Krankheiten des Herzens, systematisch bearbeitet. Th. 1. Berl. 1814. 8.

l) Handb. der pathol. Anat. S. 420. f.

m) *Reil's* Arch. B. 10. S. 213. f.

n) De morbo caeruleo obs. Witteb. 1805. 4. *Horn's* Arch. 1805. B. 2. Heft. 2.

o) Philos. Transact. 1805. *Harle's* Journ. für ausl. Lit. B. 7. Heft. 1.

p) Bulletin de la Soc. Med. de Paris, 1807. p. 21. sq.

q) Edinb. Med. and Surg. Journ. Vol. I. p. 412.

Thomas, (*a*) *Obet,* (*b*) *Palois,* (*c*) *S. J. B. Schuler,* (*d*) and *C. F. Haase.* (*e*) Cases of enormous hearts were published by *E. Horn,* (*f*) *Memminger,* (*g*) *C. W. Hufeland,* (*h*) *Heinecken,* (*i*) and *Berlicz.* (*k*) Good inquiries into the different causes and phenomena of palpitation were made by *G. A. Spangenberg.* (*l*) Cases of ruptured heart were related by *Erdmann,* (*m*) *C. E. Pohl,* (*n*) *J. U. L. Schäffer,* (*o*) *V. L. Brera,* (*p*) *Anguissola,* (*q*) and *Renauldin.* (*r*) A petrifaction of the heart was observed by *Weber.* (*s*) *J. Gärtner* made some sound inquiries into polypi of the heart; (*t*) and the observation of *Abernethy* (*u*) upon the contraction of the passage from the left auricle into the left ventricle is remarkable.

The disease called angina pectoris, which is commonly connected with organic affection of the heart, was attributed by *Jahn* to palsy of the heart, (*x*) and by *V. L. Brera,* (*y*) to preternatural size of the abdominal viscera, by which the diaphragm is pressed upwards. *J. G. Elfes* (*z*) published a case remarkable for its anomalous symptoms.

That apoplexy often arises from diseases of the heart, was proved by *Testa's* observations, and the universally lamented death of the Prince of Holstein-Augustenburgh, elected Crown Prince of Sweden. (*aa*) The doctrine of apoplexy, in general,

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a) Mém. of the Lond. Med. Soc. Vol. VI. p. 57.

b) Bullet. des Sciens. Méd. par la Soc. d'Emulation, 1808. May.

c) *Harle's* Jahrb. B. 2. S. 128.

d) Diss. de morbo caeruleo. Insbr. 1810. 8.

e) Diss. de morbo caeruleo. Lips. 1813. 4.

f) Archiv, 1808. B. 4. Heft. 2.

g) *Hufel.* Journ. B. 24. St. 4.

h) Journ. B. 32. St. 4.

i) *Horn's* Archiv, 1810. Jan.

k) Journ. de *Sedillot,* Tom. XXXV. Nov.

l) *Horn's* Arch. 1811. Jul.

m) *Horne's* Archiv, 1806. Heft. 1.

n) Diss. de ruptura cordis. Lips. 1808.

o) *Hufeland's* Journ. B. 30. St. 2.

p) Di una straordinaria rottura di cuore. Verona, 1808.

q) Giorn. della soc. med. di Parma, Vol. II. n. 11. *Harle's* Journ. der ausl. Lit. B. 10. St. 2.

r) Journ. de Corvisart, 1806. Jan. Samml. für prakt. Aerzte, B. 24. S. 229.

s) Salzb. med. Zeit. 1811. B. 2. S. 185.

t) Diss. de polypo cordis, in specie infantum. Witteb. 1810. 8.

u Medic. chirurg. Beobacht. der med. chirurg. Gesellsch. in London, übersetzt von Osann, n. 4. Berl. 1811. 8.

x) *Hufeland's* Journ. B. 23. St. 3.

y) Della stenocardia. Verona, 1810. *Harle's* Jahrb. B. 2. Heft. 1.

z) *Hufeland's* Journ. B. 37. St. 5, 6.

aa) *Rossi* in *Horn's* Archiv, 1812. B. 2. S. 27. f.

was explained upon the principles of theory of excitement, by *J. L. Ottensee*; (*a*) by *K. F. Burdach*, (*b*) upon the partial view of collapse and contraction of the brain; and by *J. A. Gay*, (*c*) merely to refute the generally sanguineous nature of apoplexy. The brothers *Montain* (*d*) divided the sanguineous apoplexy into arterial and venous, and endeavoured to distinguish them from the other kinds. *Gautier de Claubry* (*e*) published some interesting observations on the accumulation of blood in the vessels of the spinal marrow; and *Dürr* (*f*) and others upon internal varicose veins. *P. Bonomi's* (*g*) observations on the palsy of the lower extremities, combined with distortions of the spine, deserve to be read.

Upon the nervous diseases, in general, *F. W. v. Hoven* (*h*) published a practical manual. Hydrophobia, as a nervous disease, was supposed by *Jonas* (*i*) to proceed often from excited imagination. *E. Hartog* (*k*) treated of the disease scientifically, and considered hydrogen produced in dogs by the retention of the semen, as the exciting cause of the nervous affections. *T. W. G. Benedict* (*l*) gave some good hints on the nature of the disease. Also *Larrey's* remark, (*m*) that hydrophobia is rare among the Egyptian dogs, because they are of a mild race, and procreate only once a-year, contributed somewhat to explain the nature of the disease. In England, on the contrary, the disease was remarkably frequent in summer 1808; and some good cases were published by *Powell*. (*n*) *M. P. E. Gorcy's* (*o*) observations and inquiries also deserve to be read.

Upon St Vitus's dance, the work of *J. Bernt* (*p*) deserves to

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a) Von der Erkenntniss und Heilung des Schlagflusses und der Lähmung. Berl. 1805. 8.

b) Die Lehre vom Schlagfluss, seiner Natur, Erkenntniss, Verhütung und Heilart. Leipz. 1806. 8.

c) Vues sur le caractère et le traitement de l'apoplexie. Paris, 1807. 8.

d) Traité de l'apoplexie. Lyon. 1811. 8.

e) Journ. génér. de la soc. de medec. à Paris. *Harle's* Journ. d. ausl. Lit. B. 9. St. 2.

f) *Hufeland's* Journ. B. 26. St. 2.

g) *Siebold's* Chiron. B. 2.. St. 1.

h) Versuch über die Nervenkrankheiten. Nürnb. 1813. 8.

i) *Horn's* Archiv, 1805. B. 2. Heft. 1.

k) Diss. de hysteria contagiosa s. hydrophobia. Erl. 1806. 8.

l) Ideen zur Begründung einer rationellen Heilmethode der Hundswuth. Leipzig, 1808. 8.

m) Denkwürdigk. S. 250.

n) Cases of hydrophobia. London, 1808. 8.

o) Journ. de Corvisart, Tom. XIII. p. 83. Samml. für prakt. Aerzte, B. 24. S. 373. f.

p) Monographia choreae S. Viti. Prag. 1810. 8.

be noticed and distinguished. *Winiker* (*a*) observed it in adults. A history of a case is important. (*b*) *J. Schneider* published at Herborn, 1806, 8vo, a good treatise on the tetanus of children. The chincough was considered according to the modern ideas by *V. H. L. Paldamus*, (*c*) and at the same time by *Fr. Jahn.* (*d*) *R. Watts* (*e*) seems to have confounded it with the croup. *J. M. D. Clesius* is the latest author on the subject. (*f*)

The dolor faciei Fothergillii was observed by *Jonas* (*g*) and *J. G. Breiting.* (*h*) *C. F. M. Langenbeck* (*i*) inquired into the seat of the disease in the frontal nerve. *F. X. J. v. Leuthner* (*k*) and *C. A. T. Hartmann* (*l*) published good compilations on the subject. *Masius* (*m*) looked for the origin of the disease in the venereal poison. *B. Herber* (*n*) published a case successfully treated; and *Steinbuch's* recent observation (*o*) is interesting.

On hypochondriasis we have a classical work by *L. Storr*; (*p*) and good observations on the theory of gout by *Ficinus*, (*q*) with which the explanation of chalk stones by *J. More* (*r*) agrees. Upon chronic rhematism, an insignificant work by *Rodamel* (*s*) appeared. The French physicians observed at Madrid a kind of cholic, little known, which was ascribed to the sudden changes of weather. (*t*)

The desire to investigate the diseases of the mind scientifically was general among physicians. From *Pinel's* Nosographie Phi-

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a) *Horn's* Archiv, 1812. Jan.

b) Ueber die Fallsucht. Zweyte Aufl. Brem. 1807. 8.

c) Der Stickhusten. Halle, 1805. 8.

d) Ueber den Keichhusten. Rudolst. 1805. 8.

e) Treat. on the nature and treatment of chincough. Edinb. 1813. 8.

f) Etwas über die Quelle, den Sitz. die Eigenthumlichkeiten u. Heilmethode des Keich-oder Blauenhustens der Kinder. Hadamar, 1813. 8.

g) *Horn's* Archiv, 1805. B. 2. Heft. 2.

h) *Hufeland's* Journ. B. 25. St. 4.

i) Tract. anatomico-chirurgicus de nervis cerebri in dolore faciei consideratis. Gott. 1805. 4.

k) Diss. de dolore faciei Fothergillii. Erl. 1810. 8.

l) Diss. sistens observationes quasdam de prosopalgia. Tub. 1811. 8.

m) *Hufel.* Journ. B. 25. St. 1.

n) *Huf.* Journ. B. 36. St. 6.

o) Abh. der physic. medic. Soc, in Erlangen, B. 2. N. 16.

p) Untersuchungen über den Begriff, die Natur und die Heilbedingungen der Hypochondrie. Stuttg. 1805. 8.

q) *Horn's* Arch. 1808. B. 4. St. 1.

r) Med. chir. Abh. einer med. chir. Gesellsch. in London, übers von Osann, n. 10.

s) Traité du rheumatisme chronique. Lyon, 1808. 8.

t) *Larrey's* Denkwürdigk. S. 460. *Deplace* im Journ. de Sedillot, Tom. XXXVI. Sept. 1809.

losophique, Paris, 1807, in which the mental derangements are treated of, according to their symptoms, without any particular philosophical arrangement, little advantage accrued, although praised by his countrymen, exactly in regard to this branch. Yet *Pinel* had the twofold merit of having pointed out the abdomen as the cause of many derangements, and of having introduced a better treatment of these diseases. *P. A. Prost* (*a*) followed him in the pathology, especially in deriving derangement from the morbid state of the nervous ganglia of the abdomen. In Germany, journals were allotted for the improvement of our knowledge of these diseases, with little advantage, by *A. Winkelmann*, (*b*) and *J. C. Reil*, and *Kayssler*. (*c*) Another periodical work by *J. C. Reil*, and *J. C. Hoffbauer*, (*d*) was more successful. *J. C. Däubler* (*e*) explained well an acute theory of mania, in which he considers it to be a morbid affection of the sympathetic and olfactory nerves, with preponderating venosity. *J. C. Hoffbauer* published a new edition of *Crichton*; (*f*) and to this place belong a work of his own, (*g*) and another by *G. E. Elvert*. (*h*) *Winiker* (*i*) endeavoured to prove that mental derangement could be cured by medicine; but *A. Heindorf's* (*k*) is unquestionably the most successful work of its kind.

Among the cachexies, the favourite subjects with medical authors were phthisis pulmonalis and syphilis. *G. F. Ballhorn* (*l*) pointed out the cheesy, or granulated and pultaceous white expectoration which occurs in gouty (phthisical ?) people. *Salmade* (*m*) renewed the old controversy about the contagious nature of pulmonary phthisis; and afterwards (*n*) proposed some

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a) Coup-d'oeil physiologique sur la folie. Paris, 1806. 8. Deuxième et troisième coup-d'oeil. Paris, 1807. 8.

b) Archiv für die Gemüths-und Nervenkrankheiten. St. 1. Berlin, 1805. 8.

c) Magazin für die psychis. Heilkunde, B. 1. Berl. 1805. 8.

d) Beyträge zur Beförderung einer Kurmethode auf psychischem Wege. B. 1, 2. Halle, 1808. 1810.

e) Diss. de natura maniae. Tubing. 1806. 4.

f) Untersuchung über die Natur und den Ursprung der Geistes-Zerrüttung. Leipz. 1810. 8.

g) Psychologie in ihren Hauptanwendungen auf die Rechtspflege, nach den allgemeinen Gesichtspuncten der Gesetzgebung. Halle, 1808. 8.

h) Ueber ärztliche Untersuchung des Gemuthszustandes. Tub. 1810. 8.

i) *Horn's* Arch. 1810, May.

k) Versuch einer Pathologie u. Therapie der Geistes und Gemüthskrankheiten. Heidelberg, 1811. 8.

l) In quoddam phthiseos pulmonalis signum commentatur. Hannov. 1805. 8.

m) Diss. qui tend à établir, que la phthisie pulmonaire n'est pas contagieuse. Paris, 1805. 8.

n) Journ. de Sedillot, Tom. XLVI. Mars.

very inadequate means for preventing the disease. *B. C. Vogel* (*a*) related some successfully treated cases. An elaborate treatise on the mucous species of phthisis was published by *E. Wichelhausen.* (*b*) *J. J. Busch* (*c*) directed the attention of physicians once more to neglected colds as a cause of phthisis; and recommended sulphuret of lime as a remedy against suppuration of the lungs. The same author treated of the complication of the disease with hypochondriasis. (*d*) An excellent work, upon the different forms of the disease, was published by *Th. Reid.* (*e*) Acute reflections concerning the disturbed proportions of animal electricity in this disease, as well as upon the difference between the florid, chlorotic, and nervous consumption, are to be found in *L. Storr's* Essays. (*f*) *C. W. Hufeland* (*g*) and *Baumes* (*h*) also gave very good rules for the treatment of the different forms of the disease. A new and ingenious theory of consumption, that it consists in the interruption of the disoxydation process of the venous blood, and hence that it is influenced by the diseases of the liver, was promulgated by *J. D. Herholdt.* (*i*) We are acquainted with the titles only of two recent publications in England. (*k*)

Among the general works on the venereal disease, one by *F. H. Martens* (*l*) received little, but another by *F. A. Walch* (*m*) greater praise. In the latter, the theory is also thus elucidated, that it is proved that the lymphatics and capillary vessels partly

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a) Sammlung schwieriger medic. und chirurg. Fälle. Erste Lieferung. Altorf, 1805. 8.

b) Ueber die Erkonntniss, Verhütung und Heilung der schleimigen Lungensucht. Th. 1. Mannheim, 1806. 8.

c) Ueber die Natur und Heilart der Lungensucht und der gefahrvollen Katarrhalfieber. Strasb. 1806. 8.

d) Ueber die adynamieartige oder sogenannte nervöse Lungensucht. Strasb. 1807. 8.

e) Treat. on the origin, progress, and treatment of consumption. Lond. 1806. 8.

f) *Hufeland's* Journ. B. 25. St. 3. Ueber die Natur und Heilung der Lungenschwindsucht. Stuttg. 1809. 8.

g) Journ. B. 30. St. 1, 2.

h) Von der Lungensucht, übersetzt von C. P. Fischer. Th. 1, 2. Hildburgh, 1809, 8.

i) *Harle's* Jahrb. B. 2. S. 161. f. Ueber die Lungenkrankheiten, übers. von A. Schonberg. Nurnb. 1814. 8.

k) *A. Duncan's* observations on the distinguishing symptoms of three different species of pulmonary consumption. Edinb. 1813. 8. *Ch. Pear's* observ. on the nature and treatment of consumption. London, 1814. 8.

l) Handb. zur Kenntniss und Kur der venerischen Krankheit. Th. 1, 2. Lps. 1805. 8.

m) Ausführliche Darstellung des Ursprungs, der Erkenntniss, Heilung und Vorbauung der venerischen Krankheit. Jena, 1811. 8.

pass from their indifferent state into the sphere of the nerves. *E. Horn* (*a*) also gave some valuable contributions to the theory of the disease. *J. A. Schmidt's* ideas (*b*) are likewise worth reading, although delivered in a very inflated style. A work by *J. E. Aronsohn* (*c*) is perfectly insignificant; another by *J. Louvrier* (*d*) is more useful. *P. O. Mason's* (*e*) treatise also deserves notice. The old controversy about the syphilitic nature of gonorrhœa, which has been long decided, was renewed, without any good result, by *C. Ehrmann*, surnamed *Stellwag.* (*f*) A very superfluous compilation was published by *G. W. Töpelmann.* (*g*)

On the Plica Polonica, *J. F. A. Schlegel* (*h*) published very good observations. The French army physicians, who observed this disease in their earlier campaigns in Poland, did not look upon it as a disease of a peculiar nation, but as a degenerated form of syphilis. (*i*) A work by *T. E. Chronegs von Ruhmfeld* (*k*) deserves no particular notice.

Upon the scrofulous affections, we had a good work from *Baumes*; (*l*) and upon the same disease, as well as upon rickets, another disease of the same nature, we had good observations by *M. A. Salmade.* (*m*) With this subject the excellent treatise of *Alard* on leprosy (*n*) is connected. Cases of scabby leprosy were detailed by *L. Ottner*, (*o*) *Reusch*, (*p*) *A. Metter-*

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a) Handb. der medic. Chirurgie. Th. 2. Berl. 1806. 8.

b) Vorlesungen über die syphilitische Krankheit und ihre Gestalten. Wien, 1812. 8.

c) Vollständige Abh. aller venerischen Krankheiten. Berl. 1808. 8.

d) Nosographisch-therapeutische Darstellung syphilitischer Krankheitsformen. Wien, 1809. 8.

e) Über die syphilitischen Krankheiten der Schwangern, der neugebornen Kinder und Ammen. Uebers. Hildesh. 1807. 8.

f) Untersuchung der Frage, ob der Tripper eine Krankheit eigener Art, oder ein venerischer Zufall sey? Frkf. a. Main, 1808. 8.

g) Neuere Erfahrungen über zweckmässige Behandlung venerischer Schleimausflusse und der ihnen nachfolgenden Uebel. Leipz. 1809. 8.

h) Ueber die Ursachen des Weichselzopfes der Menschen und Thiere. Jena, 1806. 8.

i) *Boyer* in *Hufeland's* Journ. B. 28. St. 4. *Larrey's* Denkw. S. 431. *Roussille-Chamseru* im Journ. de Sedillot, Tom. XXXV. Juill.

k) Neueste Ansicht des Weichselzopfs. Freyb. 1813. 8.

l) Traité sur le vice scrophuleux. Paris, 1805. 8.

m) Précis d'observations pratiques sur les maladies de la lymphe. Paris, 1810. 8.

n) Histoire d'une maladie particulière au système lymphatique. Paris, 1807. 8.

o) Diss. observata quaedam in historiam leprae, subjuncto casu recentiori leprae Graecorum. Tubing. 1805.

p) *Hufel.* Journ. B. 30. St. 6.

nich, and *Fr. Wittmann*, (*a*) and *Horst.* (*b*) The northern variety of leprosy, called Radesyge, was described anew by *J. Vougt*; (*c*) and *J. H. G. Schlegel* (*d*) edited a collection of papers on Pellagra.

The theory of dropsies was again attempted to be established by *J. A. Walther* (*e*) on excess of hydrogen, and defect of the formation of blood in the capillary vessels. The latest work, by *J. Blackall*, (*f*) we only know by its title.

Lastly, we proceed to notice the most interesting observations on the diseases of individual organs. *J. Abernethy's* observations upon the diseases of the digestive organs in general (*g*) are worthy of perusal; likewise *Pemberton's* remarks upon the difference of diseases seated in the nutritive and secretory glands; (*h*) *J. A. Stone's* observations on the diseases of the stomach; (*i*) *Chardel* upon scirrhus of the stomach; (*k*) and *Jäger's* excellent remarks on the softening of the bottom of the stomach. (*l*)

Upon the diseases of the liver, *J. Farre's* publication (*m*) is greatly praised; and *C. F. Harles* (*n*) has made some good remarks on the diseases of the pancreas, especially its suppuration.

On the stricture of the œsophagus, *Heineken's* (*o*) and *Nacquart's* (*p*) observations are to be recommended. *Metzler* (*q*) published on strictures of the rectum; (*r*) *Rubini* on those of the jejunum; and *S. T. Sömmerring*, (*s*) and *W. Schmidt*, (*t*) on the diseases of the urinary organs.

(*To be concluded in our next Number.*)

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a) *Hufel.* Journ. B. 32. St. 6.

b) Diss. casum singularem morbi leprosi Ubiorum Coloniae observati. Paris; 1812. 8.

c) Obs. in exanthema arcticum, vulgo Radesyge dictum. Gryph. 1811. 4.

d) Briefe einiger Aerzte in Italien über das Pelagra. Jena, 1807. 8.

e) *Hufeland's* Journ. B. 35. St. 3.

f) Observations on the Nature and Cure of Dropsies. Lond. 1813. 8.

g) Surgical Observations, P. II. Lond. 1806.

h) Practical treat. on various diseases of abdominal viscera. Lond. 1806.

i) Practical treat. on the diseases of the stomach. Lond. 1806.

k) Monographie des générations scirrheuses de l'estomac. Paris, 1808. 8.

l) *Hufeland's* Journ. B. 32. St. 5.

m) Morbid Anatomy of the Liver. Lond. 1814. 4.

n) Ueber die Krankheiten des Pancreas. Nürnberg, 1812. 4.

o) *Hufeland's* Journ. B. 32. St. 5.

p) Journ. de Sedillot, Tom. XLII. Sept.

q) *Hufeland's* Journ. B. 33. St. 1.

r) *Horle's* Journ. der ausl. Liter. B. 10. St. 2.

s) Abh. uber die schnell und langsam tödtlichen Krankheiten der Harnblase und Harnrohre bey Männern im hohen Alter. Frkf. am Mayn, 1809. 4.

t) Ueber diejenigen Krankheiten der Harnblase, Vorsteherdrüse und Harnrühre, denen vorzüglich Männer im hohen Alter ausgesetzt sind. Wien, 1806. 8.

II.

On the Causes of the Tropical Endemic, or Yellow-Fever. By D. J. H. Dickson, M. D. F. L. S. Fellow of the Royal College of Physicians of Edinburgh, and late Physician to the Fleet in the West Indies, &c.

In the 47th Number of the Edinburgh Medical and Surgical Journal, Mr Sheppard has very ably explained some of those sources from which fallacious deductions have been formed on the nature of yellow-fever. The chief design of that paper seems to be, to arrest the attention to the difference between relative and absolute immunity; and, as I have reason to believe that the writer could have instanced a second attack of yellow-fever in others, as well as in his own person, it appears to me that he might have extended his observations with increasing advantage to his conclusions, which closely accord with the results of my own experience.

My present object is to make some ætiological remarks applicable to the subject, with the view of accounting for, rather than with the hope of reconciling, some of the conflicting opinions which have been entertained; but, as I cannot now go at length into the proofs of those I have to offer, I must trust to be allowed credit on this occasion for having a superabundance of evidence in their favour in my possession.

Marsh miasma is very generally, and justly, considered as the grand source of the fevers of warm climates; but, though very frequently so, it is not necessarily always, or the only source of that in question. While its operation has been too exclusively insisted upon by some authors, it has only been admitted under great limitations by others. The term, indeed, is not free from objection, since it has caused the latter to receive it in a sense far too strict and literal, and to question the existence of such exhalations, except in the vicinity of a complete swamp, or marsh.

I am at present to consider the miasmata of decomposition, with reference to their effect, and not to their intimate nature, in whatever situation they may occur; and, in this general sense, it appears to me, that, in a temperature so uniformly high as that of the West Indies, and where decomposition is so rapidly promoted by the agency of heat and moisture, there can be very few places where the occasional production of noxious effluvia may not be calculated upon on shore; and sometimes, also, on ship-board. Of fever arising in particular ships, from impure exhalations emanating from a foul state of the hold, continuing notwithstanding every attention to preventive measures, and ceasing only upon the hold being cleared, I have seen many well-marked instances. As the most unseasoned part of a ship's company, and especially strangers, will be most liable to suffer; in this case, it is easy to perceive that such attacks might sometimes be construed in favour of infectious fever; but, that they proceeded solely from the source above mentioned, appears to me clearly demonstrated by the previous inefficacy of ventilation and cleanliness,—by the impunity with which promiscuous intercourse, elsewhere, is maintained with other ships,—by the extinction of the disease upon the hold being cleared, and not till then,—and by its not being propagated or communicated by the sick, when removed from its original source. I shall adduce one example, where, from the peculiar construction of the vessel, the source of the febrific exhalations could be more clearly ascertained than when they arise from a foul state of the ballast in general. In April 1807, a fever prevailed in the Dart, lying guard-ship at Barbadoes, which, at first, was attributed to land influence, and irregularities committed by the men employed on shore; but as it continued, from time to time, to attack new-comers, especially after sleeping two or three nights on board, an internal cause became suspected. The ship was divided into compartments below, so as to allow of the water being carried in large tanks or cisterns, instead of the usual manner; and these, having been disused in harbour, their bottoms were found to be covered with an offensive deposition of slimy mud. On the 17th of May, cases of fever still supervening, I find by my notes that this evil had been detected, and remedied; and communications between the divisions had been opened, so as to allow a free circulation of air below; and on the 24th I find it stated, 'For the last week no fresh attacks of fever have occurred on board the Dart.' The fatal cases terminated at the hospital with the usual symptoms of yellow-fever. As such fevers may occur at various periods after exposure, consequently, after the cause has been removed, the early cessation of the disease, in the present instance, is more material, where the ship was constantly receiving new men; because their not being affected subsequently, showed that the cause which had existed previously, existed no longer.

Impure effluvia will be most apt to be generated in a new ship, particularly if built of green wood; or where the shingle ballast has not been restowed for a length of time, or had not been, originally, carefully selected. If such exhalations (between which and animal effluvia, confined or produced by the human body under disease, a wide distinction obtains, though their effects have been often confounded) be admitted to occur, occasionally, in a man of war, where cleanliness is proverbial, it is easy to perceive, that, by the agency of heat and moisture, they may, under particular circumstances, in a transport or merchant-ship, become so abundant and concentrated, that the hold, without the expression being very figurative, might be denominated a ship marsh.

But the principal source of obscurity, and of contradictory opinions on the yellow-fever, appears to me to arise from sufficient attention not having been paid to those states of the system upon which the frequency and fatality of the disease so much depend, and which may be designated by the terms, susceptibility and disposition. By the first I mean simply the natural liability of the unseasoned European constitution to be affected with that fever in the torrid zone, upon exciting causes sufficiently powerful being applied; by the latter, an acquired, or higher degree of susceptibility, by means of which, causes less powerful, and otherwise inefficient, become adequate to the production of yellow-fever. The propriety of distinguishing those states, though it may be said they differ only in degree, I hope to make apparent; but I do not mean to say that the terms are the best that could have been selected; it is sufficient, in this case, that they are understood. I have substituted, on reflection, the word disposition for predisposition, (though I should have preferred the more familiar term), because it might be contended, that the latter ought to imply a previous, rather than an acquired tendency.

The degree of such disposition will fluctuate considerably during the earlier period of an European's residence in the West Indies, according to his age, the season of the year, and as various stimuli have a greater or less influence upon the system; or, in other words, in proportion as it has been freely and suddenly, or cautiously and gradually exposed to their operation. In such a climate, where the youthful, sanguine temperament is, at any rate, goaded by the stimulus of unnatural heat, into a degree of febricular excitement; it is not extraordinary that, from free living, intemperance, or undue exposure or exertion, there should be much danger of this artificial excitation terminating in real fever, until the system becomes gradually inured, and less sensible of such influence by the effect of habit, or assimilated by the supervention of, what have been called, seasoning, or milder attacks of sickness.

The dangerous increase of this susceptibility may be often observed in ships recently arrived from Europe, continuing healthy, while refitting in harbour, for ten days, a fortnight, or longer, according to the season, and becoming very sickly afterwards. Its variation, and decline, are sufficiently exemplified in the disparity of health enjoyed by the crews of ships under repair, at the same time, in the same harbour, and exposed to precisely similar exciting causes, but differing in the length of their residence in a tropical climate, or the degree of exposure to which they had been previously subjected. The variation in these respects will cause such dissimilar results, that a fatal fever will become general, in a short time, in one ship; in another, the sickness will be partial, and less dangerous; while a third will be altogether exempt, or experience only mild and occasional attacks. This gradation will be sufficiently obvious, although its uniformity may be somewhat affected by peculiarities in season, modes of discipline, and various minuter causes, while the chief circumstances are apparently the same.

The danger of a West India climate, or, in other words, the tendency to yellow-fever, I conceive, then, to be in the compound ratio of the disposition, and the force of the exciting cause; a weaker exciting cause being sufficient when the system is strongly disposed, and *vice versa;* for, fortunately, these often obtain in an inverse proportion; and the constitution has been more or less habituated, previously to any considerable exposure. How greatly the preservation of health must depend upon the inurement being gradual, is too obvious to require any comment. The degree of security, however, that may be acquired, will be relative; for the insusceptibility will be much greater after an attack of this fever,—or from being habituated to miasma, or other remote causes, than from mere length of residence.

Marshy effluvia, or similar impure emanations in other situations, I have already stated to be, in my opinion, a great source of yellow-fever, either as a predisposing or exciting cause; but, if the above premises be correct, it further follows, that the causes of yellow-fever may be the same as the remote causes of fever in general; that they may act in various degrees of intensity, or combination; that the weaker require the aid of disposition, to become efficient; but when the system is highly excited, or prepared to fall into fever, that any additional agency, though of itself inoperative and insignificant, may become the occasional cause; and, consequently, that this disease may be called into action, in some cases, by such as are feeble, dissimilar, and so obscure as to elude investigation.

In speaking of causation, then, I do not mean to express individual agency, but any concurrence of circumstances which constitutes a cause; for I imagine we can seldom, in pathological physics at least, calculate upon either singleness of cause, or simplicity of effect. If the preceding principles are well-founded, it will not be necessary here to enter into any length of illustration to show, that sporadic cases may arise, in this way, at all seasons of the year, from undue exposure, intemperance, fatigue, or other irregularities, as well as from circumstances so minute, as often to escape detection; that a number of men, such as a regiment, or a ship's company, or any part of them, from similarity of temperament, employment, or situation, will often suffer simultaneously, particularly during the hurricane season, and all the latter half of the year; and that in particular years, from previous unseasonable weather, or an epidemic constitution of the atmosphere, and in all years, during the sickly months, when a considerable number of unassimilated men have been recently introduced into the West Indies, the yellow fever may be expected to become general among them, and to be attended with great mortality, particularly after much exposure and exertion, often inseparable from active warfare. As the constitution will suffer less excitement from the heat, the coming from another part of the torrid zone, or a southern climate, will confer a certain degree of protection; but this will be only sufficient to guard against the weaker, or ordinary causes of yellow fever. In my own case, I considered the danger diminished by having previously served four years in the Mediterranean. The gradation which I have above attempted to explain, is well illustrated by the following unstudied, but impressive extract of a letter, now lying before me—'While we were all ill, and dying in the Alligator, in English Harbour, shortly after our arrival in the West Indies, the Emerald, which had been two or three years in the climate, remained near us healthy, though under precisely the same circumstances of duty and exposure. The Emerald was succeeded in her situation by the Carysfort, fresh from Europe, which ship, in a few weeks, buried almost all hands.'—

From regarding the habits, as well as the ætiology of the tropical endemic, the laws which govern its appearance seem to me to be entirely different from those of the plague and typhus fever, with which it has been sometimes compared. To those disorders, strangers, and the natives of the countries in which they prevail, are, *cæteris paribus*, obnoxious in the same degree; and all such as are equally exposed, may be said to be equally endangered. But it is totally different in the legitimate yellow fever in the West Indies. It is the disease of manhood, of the excited, unassimilated, full habit. It more rarely attacks an earlier or later period of life; and seldom the female, or only in proportion, as from intemperance, or other causes, they approach to the habit of the male sex; while old residents, whether native or assimilated, and people of colour, though subject to remittent and other milder forms, may be said to be almost entirely exempted from this severe form of disease,—for they are so, with as rare exceptions as we witness in the application of any other general rule.

But whatever may be the peculiar coincidence of circumstances, or modification of cause, most fertile in the generation of yellow fever, an uniformly high temperature is the *sine qua non*. This is literally and eminently entitled to be so denominated, because it indispensably precedes the effect. In the Caribbean Archipelago, the temperature is not only high, but equably and durably so; and from its little variation in this respect, I consider the yellow fever as the legitimate product of the climate; for in the more southern colonies on the continent, where, from the vicinity of woods, mountains, &c. the temperature, though often as high, is not uniformly so, and where the winds are more variable, and the nights cooler, the disease is much less prevalent, and oftener assumes a remittent type.

To the importance which I attach to an equably high atmospheric temperature, it will be objected by some persons, that, in countries which should be still more favourable to this disease, because the heat is more intense, and also in places lying in the same latitude, the yellow fever is not known. But, in the first place, it becomes incumbent on such persons to show, why a temperature above a certain height ought to be more favourable; for, on the contrary, I should expect that great heat would dissipate and destroy, if not prevent the formation of the miasmata of decomposition; and, secondly, it by no means follows that the climate of two places is alike, because they lie at the same distance from the equator.

M. Humboldt remarks, that the salubrity of tropical climates depends more on the dryness of the air, than on any of its other sensible qualities. The burning province of Cumana, the coast of Cora, and the plains of Caracas, prove, that excessive heat, alone, is not unfavourable to human life.

All historians concur in admitting the different laws to which the corresponding degrees of the two hemispheres are subject, with respect to the distribution of heat and cold; for the exceptions, from local causes, stated by Clavigero, cannot affect the general principles. The difference in the same latitude has been estimated at 12°, or more degrees; but, according to relative situation, it must be often much greater.

The dissimilarity of climate, between the eastern and western sides of the New Continent, from this cause, and from the greater variableness of the wind, is also noticed by various writers, and particularly in the voyages of Ulloa, Anson, and others.

At Lima, in a southern latitude, nearly corresponding with the northern of Carthagena, the heat is far more moderate; and the observations made by the academicians at Quito show, that, from its elevated situation, although close to the line, the thermometer does not rise, there, so high in summer as it does in Paris; nor does it fall so low as in the temperate climates of Europe in winter,—so uniform are the seasons. Rees, Pinkerton, Walton, &c.

This disparity of the Old and New Continent, and of places lying in the same parallel, is sufficiently accounted for upon philosophical principles, and depends on the elevation, depression, or extent of country, direction of the winds, nature and cultivation of the soil, proximity and height of mountains, and many circumstanses which modify the temperature of a climate, besides its distance from the equator, and the consequent more vertical or more oblique incidence of the solar rays.

Dr Robertson observes, ' while the negro on the coast of Africa is scorched with unremitting heat, the inhabitant of Peru breathes an air equally mild and temperate, and is perpetually shaded under a canopy of grey clouds, which intercepts the fierce beams of the sun, without obstructing his friendly influence. Along the eastern coast of America, the climate, though more similar to that of the torrid zone in other parts of the earth, is nevertheless considerably milder than in those countries of Asia and Africa, which lie in the same latitude. '

He afterwards shows, that the trade wind is still further cooled in its passage from the Atlantic to the Pacific shore of the New Continent. ' As this wind advances across America, it meets with immense plains covered with impenetrable forests, or occupied by large rivers, marshes, and stagnating waters, where it can recover no considerable degree of heat: At length it arrives at the Andes, which run from north to south through the whole Continent. In passing over their elevated and frozen summits, it is so thoroughly cooled, that the greater part of the countries beyond them hardly feel the ardour to which they seem exposed by their situation. In the other provinces of America, from Tierra Firmè, westward to the Mexican empire, the heat of the climate is tempered in some places by the elevation of the land above the sea, in others by the extraordinary humidity, and also by the enormous mountains scattered over this tract.'—*Hist. of Amer.* vol. II. p. 9. *et seqq.* 9th edit.

Hence the great salubrity of the table-land, in the centre of New Spain, compared with the low marshy lands upon the coast.

On the opposite sides of Mexico, where the distance is so much less than across the other parts of the Continent, the influence upon disease is yet considerable. Thus we learn from M. Humboldt, that although bilious fevers and cholera morbus prevail, the black vomit has never yet been observed on the west coast of New Spain, while Vera Cruz is considered as the chief seat of that terrible distemper.

The disastrous results of the expeditions to Carthagena, Porto Bello, Vera Cruz, &c. which have been the theme of the historian and of the poet, have, indeed, fatally proved the peculiar noxiousness of the extremely hot and marshy climate of the eastern shore. *

Even in the short distance of 60 miles, between Panama and Porto Bello, the difference is sufficiently perceptible, although, from improvements, it may be less so of late years. Ulloa remarks, that the garrison detachments sent from the former to the latter, 'though coming from a place so near, are affected to such a degree, that, in less than a month, they are so attenuated as to be unable to do any duty, till custom again restores them to their strength;' and that 'the inhabitants of Panama are not so meagre and pale as those who live at Carthagena and Porto Bello.'—*Translation by Adams*, vol. I. p. 98 & 123, 4th edit.

I am the more anxious to advert to these points, because they assist in explaining the influence of locality and susceptibility in the production of yellow fever.

For, besides the lower and more variable temperature and winds on the extensive coast washed by the Pacific Ocean, the introduction of Europeans is more gradual and limited, and their constitutions may be supposed to have lost that freshness

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* To one who has been an actor in such scenes, I do not know, in the whole circle of poetry, a passage which more irresistibly awakens the memory of former painful feelings, than the following affecting picture, in Thomson's Summer, of the pestilence that destroyed the English fleet at Carthagena.

——' You, gallant Vernon, saw
The miserable scene; you pitying saw
To infant weakness sunk the warrior's arms;
Saw the deep racking pang, the ghastly form;
The lip pale quivering, and the beamless eye
No more with ardour bright;—you heard the groans
Of agonizing ships from shore to shore;
Heard nightly plunged, amid the sullen waves
The frequent corse.'—l. 1050.

(if I may use the expression) so favourable to this disease, by the length of the voyage and climates through which they must pass; or by the seasoning attacks, to which they are liable before they reach their destination, if they land at an eastern port.

There are two powerful reasons, then, why Europeans, on the other side, are so much less subject to yellow fever: They have not only lost a considerable share of their original susceptibility by pre-assimilation, but their equatorial parallelism is so far counteracted by the difference of climate, that they may be considered, though *actually* living in the same, as *virtually* living in a more northern latitude.

The converse of this proposition appears to me well adapted to explain the occasional appearance of the fever which has excited so much controversy in America and in the south of Europe. During the unusual and long-continued height of the thermometer, by which these epidemics have been preceded, the inhabitants are virtually placed in a new or tropical climate; and the same general effect follows which would result from the sudden transition of a body of men to the West Indies, with a considerable share of northern susceptibility. In both cases, the constitution, being unassimilated to the change, will be liable to be affected by the unusually heated and peculiar state of the atmosphere, whether its influence may be admitted to consist in producing the dispositional tendency of which I have spoken, or the development of those miasmal products most favourable to this form of fever, or in both.

Upon these modifications of fever I do not propose to offer any observations at present; but I am inclined to believe, that the discrepancy of opinion thereon is much to be attributed to partial and incomplete views of disease in limited and detached situations; and that the more we see of fevers in the various quarters of the world, the more we shall be induced to refer to general but determinate principles their phenomena, as well as their mode of action or effects upon the body, though the latter, of course, will be susceptible of great diversity, according to the nature or concentration of cause, individuality of constitution and structure, and relative importance of the organs particularly affected.

In his celebrated work on the political state of New Spain, to which I have already alluded, M. de Humboldt seems to have justly appreciated the influence of uniformity of temperature, situation, and individual susceptibility, in the production of yellow fever. I shall quote from my notes, as I have not the book before me. He is of opinion that the yellow fever has occurred sporadically whenever persons born in a cold climate have been exposed in the torrid zone to air loaded with miasmata; and he very properly cautions us against confounding the period when a disease was first described, with the date of its first appearance.

The yellow fever, he informs us, is still unknown at Acapulco; though, from the uniformity of the heat, he is apprehensive that, if ever developed, it will continue the whole year, as in other situations where the temperature varies only two or three degrees during the year; and he most judiciously remarks, that if this port, instead of being frequented by ships from Manilla, Guayaquil, and other places of the torrid zone, received ships from Chili, or the north-west coast of America, if it were visited at the same time by a great number of Europeans, or of Highland Mexicans, the bilious would probably soon degenerate into yellow fever, and the germ of this last disease would develop itself in a still more fatal manner than at Vera Cruz. M. Humboldt afterwards gives a still more satisfactory reason why it is not brought from Chili, viz. that it does not exist there;—which I imagine to be not a little applicable to the Bulama, and some other instances of imputed importation, like that from Siam, characterized by Dr Lind as 'truly chimerical.' For, after stating that the yellow fever has not appeared upon the coast of the Pacific Ocean during the last fifty years, except at Panama, and that there, as at Callao, the commencement of a great epidemic is often marked by the arrival of some ships from Chili, he adds, not that they imported the disease from a country where it never existed, but because the inhabitants, coming from the healthiest country in the world, experience the same fatal effects of a sultry air, loaded with putrid emanations, as the inhabitants of the north. See his Second Volume, and the 29th Number of the Edinburgh Medical and Surgical Journal.

The same reasoning, I may observe, particularly applies to the error which has been so often committed, of mistaking epidemic for contagious diseases, and supposing them to be imported by new-comers; because, from unassimilation to the new atmosphere, they are generally the first and greatest sufferers from local causes. Thus, Ulloa states, though he does not seem to believe it, that, when the black vomit first appeared at Guayaquil in 1740, the galleons of the South Sea having touched there, it was the general opinion that they had brought that distemper, and that great numbers died on board the ships, together with many foreigners, but very few of the natives.—(Adams, Vol. I. p. 161.) I need hardly remark how infinitely more probable it is, that the poor sailors, coming from a pure air, suffered from the unhealthy marsh in the vicinity, which Estalla describes as infecting the city, at particular seasons, with pestilential vapours; but which to the natives, from habituation, were comparatively innoxious. Even in ordinary seasons, in the West Indies, it is not unfrequently observed, that men, though partially seasoned in one place, are, nevertheless, liable to be again attacked by fever upon their removal to another, or even to a different part of the same island; and this sometimes happens, although the latter may be esteemed as healthy, or even a healthier situation; proving the influence of a new, or in some respect differently modified atmosphere, or of other circumstances which the apparent locality, though it may in some degree, is insufficient wholly to explain.

Indeed, we not only observe striking peculiarities in the features of disease, in different climates, but often a considerable change in the state of health from a seemingly inconsiderable change of situation; and if such effects happen from modifications of climate, soil, or other circumstances, for which we are so often unable to account, it is necessarily much more to be expected that strangers arriving at the commencement of a sickly or epidemic season, should be the earliest victims; and thus, erroneously, they have been sometimes thought to have brought a disease, merely because they were the first affected by new miasmata, or other local causes, increasing the susceptibility of a habit probably already prone to febrile or inflammatory action.'

As, for the reasons already given, and from personal observation of the tropical endemic in almost every variety of situation —proving it to arise in hot, low, moist, close places, whenever new men are exposed to miasmata, intemperance, or fatigue,— I must consider the yellow-fever, not as an imported or contagious disease, but as a strictly local and indigenous evil, 'quod sol atque imbres dederant, quod terra crearat sponte sua,' to use the words of Lucretius in a different application. I shall only remark here, that, if it possessed any contagious property, it is to me altogether unaccountable, that conviction thereof should not have been coerced, almost with the force of mathematical demonstration, long before the present day, considering the continual and unrestricted intercourse generally carried on between ships, as well as between the opposite sides of the Isthmus of Darien. But, on the contrary, examples of individual disease, or of a limited number only, are constantly occurring in the same ship, again and again, without extending further; and it becomes epidemic, as I have endeavoured to explain, only when a generally operating cause produces a general effect. Hence it is legitimately endemic in the West Indies, and becomes often epidemic there at particular seasons, and occasionally, in other countries, after exposure to the influence of tropical heat. If the fever of Gibraltar and other parts of Spain be the same disease, and if it possess any such property, which I consider as still remaining to be proved, I must therefore contend that it is not a native, but an adventitious character, and that, like other diseases attended with febrile action in temperate climates especially, it is susceptible of being modified by the occasional coincidence of peculiar circumstances, such modification placing it in a class which, in my official report on the subject to the Naval Medical Board, (perhaps inaccurately, but for the sake of distinction merely), I called *Diffusible Disorders*; the power of dissemination in such, not being, as in other communicable diseases, native and inherent, but contingent and acquired. Although I do not mean here to enter further upon the question of the Peninsular fever, yet, as its progress has been considered by some to be satisfactorily traced, and its prevalence to be unaccounted for by any supposition of an epidemic change of the air, or endemic origin, without a reference to contagion, I may be permitted to remark, in passing, without dwelling upon the inference, that, in the latest work upon the subject, and in which this opinion is temperately supported, the concurrence of a certain height of temperature, and of a combination of circumstances difficult to define, but connected with the climate and individual predisposition,—is nevertheless admitted to be necessary to the existence of the disorder.

Indeed, stronger evidence of a highly deleterious state of the atmosphere, as exemplified by its pernicious influence upon animal life, in these instances at least, cannot well be adduced, than that furnished by the author of the reports himself; for, in the fever at Cadiz in 1800, Sir James Fellowes, I believe in page 45, speaking of the air, says, 'its noxious qualities affected even animals; Canary birds died with blood issuing from their bills:' And he quotes the authority of Arejula in further proof of similar fatal effects upon domestic animals, particularly dogs, cats, horses, poultry, and birds.

In accounting for the tropical endemic becoming epidemic at particular seasons, the eminent traveller before referred to, further shows the intimate connexion, on the coast of Mexico, between the progress of the disease, and the temperature and state of the seasons; and, accordingly, that, at Vera Cruz, the *vomito prieto* does not commence, generally, till the medium heat is 75° Fahr. It is, therefore, seldom seen in December, January, and February, unless it has been very violent in the summer, when it continues more or less through the winter;

but, as he observes, although it is hotter in May, its ravages are more dreadful in September and October, because a certain duration seems necessary to develop its full force; which must, moreover, be augmented after the rains have ceased, which last from June till September, as well as be influenced by the direction of the winds. The same increase of disease, I may remark, is observed in the islands, during the hurricane months; and this is also in proportion as the previous weather has been unseasonable: But the medial heat at which the disease begins to be prevalent, may be calculated at, at least, from 5° to 10° higher; from which it may be deduced, that, in proportion as the air is more loaded with miasmata, as on the Atlantic shores of New Spain, the disease may become active at a lower temperature, than when these effluvia are less abundant and concentrated; and it may further account for its appearance beyond the tropics, during the summer heat.

In proof of the effect of seasons, I have now before me a letter from Dr Macarthur, who ably conducted the Naval Hospital at Barbadoes for several years, corresponding with his report to the Medical Board in September 1809, in which he says—'I remarked, while at Barbadoes, that the fever was more frequent, and more violent, when the rains were partial, than when continued and general. The heat of the sun produced the decomposition of animal and vegetable substances more rapidly when the earth was slightly moistened by rain, than when perfectly drenched. In these years, when the rain fell abundantly during the months of June, July, and August, the fever did not appear until September, October, and November. On the contrary, when June, July, and August, were comparatively dry months, the fever invaded us earlier. We know, in Europe, that the effluvia from marshes are more deleterious a week or two after the beginning of hot dry weather, than immediately after the rains are over; the first evaporation from the surface of the marsh being innoxious, compared with that which afterwards follows.' Upon the same principle, as has been well explained by Dr Bancroft and others, it is not during excessively wet or dry seasons, but some time after the rains, or after partial showers, that marshy effluvia are most abundant and concentrated, as I saw dreadfully exemplified in the garrison epidemic at Mariegalante, in the autumn of 1808. At certain seasons, therefore, in hot countries, wherever there are vegetable and animal life and decay, even though no water be stagnating on the earth, the whole flat surface may be considered as a marsh; and, consequently, there can be very few situations, as I mentioned at the commencement, exempt from the occasional influence of such miasmata.

It is only by tracing its connexion with the seasons, then, that we can rationally expect to unfold the laws of the tropical endemic; and such topographical hints as I have here offered, if followed up, I should hope would materially contribute to this end, although the peculiar and intimate combination of circumstances, as well as its sporadical occurrence, must often depend upon causes so minute as to elude all investigation.

The degree of exemption from the disease will be, generally, conditional, and contingent upon various circumstances; for though indemnity to a considerable extent may be purchased by a previous attack, or by mere length of residence, yet such protection is but relative; and, though a sufficient security against ordinary causes, is not proof against such as are of great intensity.

The Circe frigate, after having been several times at Antigua, and escaping with a limited number, or only individual instances of yellow-fever, by putting to sea before it became general, entered English Harbour, which was then healthy, on the 4th of January 1808, no man requiring medicine. In five days afterwards, the fever appeared; and, from being engaged in the unwholesome duty of clearing the hold, and heaving down, between that period and the 2d of February, 146 men were sent to the hospital, of which number 22 died with black vomit, although it was then the healthiest season of the year, and the ship had been nearly two years and ten months in the West Indies.

Still, though the immunity was far from amounting to insusceptibility, the danger here was much lessened by partial assimilation; for it may be fairly inferred, that the mortality would have been much greater if the ship had been recently from England.

A great proportion of these men had suffered previous attacks of fever; and I think there can be as little doubt, that some of them, at least, would have terminated in the same way, if they had not been controlled.

If this fatal fever, incident to Europeans in the West Indies, be admitted to be only a higher grade of the fevers of the torrid zone, it may, perhaps, be inaccurate, in a strictly philosophical sense, to press the necessity of giving it a distinctive or more appropriate appellation than that of yellow-fever. The incorrectness of naming it from an incidental and unessential symptom, has been sufficiently commented upon; but the great objection consists in this symptom, ofting causing it to be confounded with the common bilious, and other milder fevers; and hence do we read of many instances of the successful treatment of yellow-fever, by means which were never entitled to that credit. What name may be deemed the most appropriate, I do not take upon me to determine. The term *Causus* would, at first sight, appear to be sufficiently so, as the disease is so generally accompanied with great heat and vascular action; but as it does not assume this ardent form, in some instances, the name might mislead, and tend to throw the young practitioner off his guard, when these symptoms were not present. The epithet Endemial, may be considered too vague,—that of Caribbean, or even Tropical fever, may be considered too local,—but, perhaps, the latter is the least objectionable (provided the milder fevers of the torrid zone were understood to be excluded), since this disease only occurs in tropical regions, or in places subjected to tropical heat.

Be this as it may, I must contend that the yellow-fever (characterized by gastric irritability and inflammation, and ending in the black vomit) ought to be regarded, for all practical intents and purposes, as a distinct and peculiar disease; and a diagnosis, as far as it is possible, established, with a view both to a just prognosis and treatment. For, though success will be greatly influenced by locality and constitution, and though the symptoms of this malady do not always permit, nor can they, where they do authorize, be always arrested by the copious abstraction of blood; yet I feel justified in saying, that it is only from this remedy, employed while the fever is forming, or within a short time after it is formed, aided, of course, by purgatives, and by the cold affusion, if indicated, that we can entertain any plausible expectation of arresting a disease where the morbid motions are of such inordinate power and rapidity. In making this remark, I more particularly allude to that which I have most frequently witnessed, the ardent continued form of this disease, where the deceitful pause, during the transition from one stage to the other, has been so often mistaken for a remission. To admit the effects of the morbid action upon the stomach, contiguous intestine, and brain, often in the course of a few hours, would appear to me equivalent to admitting that we could only rationally hope to counteract them by such powerful means, provided we put aside preconceived opinions and theory.

The ability with which men bear the loss of blood, I have already allowed very much to depend upon habit and locality; and its efficacy entirely on the early stage of the disease.

In situations peculiarly pestilential, or where, from concentration of cause, the animal energy is so far depressed, as early to incapacitate the functions for the performance of those duties by which life is supported, or after sufficient time has elapsed to have allowed the establishment of fatal congestions,—I do not pretend that there is any hope of these being removed, but, on the contrary, death will be accelerated by the use of the lancet. All I mean to say is, that, during the first stage, at least in the shape in which I have most frequently seen the disease, and while the progress of inflammation in the most vital parts is rapidly proceeding, yet still remediable, I am acquainted with no other remedy which has either time or power to save them from disorganization.

Having had but too many opportunities of being convinced of the want of commensurate efficacy in those inerter means by which the fevers of temperate climates are often conducted to a safe termination, I feel perfectly satisfied, when I hear of great success in the treatment of this disease, either that results so fortunate have been the reward of a prompt and decisive plan of treatment at the very commencement, or that the disorder was of a far milder, and more remediable nature, than that which I have been accustomed to, under the name of yellow-fever. Would to God I could say, that the most prompt and decisive measures will be generally attended with success; but I may say, that this will almost entirely depend upon the earliness of their application; or upon the judgment to determine when the disease has so far advanced, that they are no longer applicable, and must be succeeded by an immediate, and entirely opposite mode of treatment.

The mediocrity of remedies often causes them to retain that reputation which they have previously, and sometimes unjustly acquired; but the power of a remedy so active as venesection, yet whose utility is so entirely dependent, not only on time and quantity, but on the varying state of the system, is in continual danger of being rated too high or too low. I am sorry, therefore, to observe, that it is spoken of with too much confidence by some writers; because this tends, on failure, to bring its character into disrepute with others, though it oftener suffers from the opposite extreme of unfounded apprehension.

Upon the now undisputed and general utility of purgatives, it is quite unnecessary to say any thing here: They have not only the great advantage of being eminently serviceable where blood-letting is proper, but where it cannot be resorted to, and, in a vast variety of milder cases of fever, where it is not required.

The preservation of individual health in the West Indies will very much depend upon following the advice contained in the comprehensive maxim of Celsus,—the avoiding of various predisposing and exciting causes, until the physical sensibility of the system is reduced by habit.

The general healthiness of that country will vary at different periods, according to atmospheric influence; for, of the influence of certain seasons, which has been admitted from the time of Hippocrates downwards, and even from that of Homer, I do not think any person who has followed the history of epidemics in the various parts of the globe, can entertain any reasonable doubt. It will be also affected by unusually wet, or dry, or what has been called unseasonable weather. But generally, the degree of health enjoyed in the West India Islands will very much depend upon the number of Europeans introduced, the time of the year, and situation chosen, and upon the exposure being limited at first, and gradually increased.

During war, when the influx of unseasoned constitutions is considerable, particularly after active service or much exertion, great sickness and mortality are, I fear, unavoidable.

The healthiness of the Navy will very much depend upon avoiding undue exposure to the sun, rain, night air, fatigue, intemperance, and unwholesome shore duties, especially during the sickly season; and upon the attention paid to various regulations, and preventive measures, of which I have had ample opportunities of appretiating and of stating the value, from the inspection, and reports of, generally, between 60 and 70 vessels of war. The bad effects of staying too long in port at one time, and, independent of irregularities, of harbour duties, particularly early in the morning, and after the setting of the sun, as well as during his meridian power, cannot be too strongly adverted to here; and, therefore, a measure of paramount importance is the employment of negroes, natives of the country, or at least of men accustomed to the torrid zone, in wooding, watering, transporting stores, rigging, clearing, careening ships, &c.; and in fine, in all such occupations as must subject them to excessive heat, or noxious exhalations, which cannot fail of being highly dangerous to the health of the unassimilated European. But, when this cannot be done, it will also be greatly preserved by relieving the ships, &c.

But it will chiefly be preserved by relieving the ships on that station (the prospect of which, alone, has a wonderful effect on the health and spirits of the men) so often, that a foul state of the hold, and the necessity of clearing it in that country, shall, as seldom as possible, arise. During a period of nearly eight years of the late war, considerable sickness and mortality must necessarily have occurred; but, in that time, I have likewise had the great satisfaction of witnessing, in various ships, and on various occasions, that a great degree of health might be maintained in that climate, particularly latterly, when, the season of active warfare being past, the necessity was precluded, and consequently the unwholesome duties of clearing the hold, heaving down, or undergoing lengthened repairs in the close harbours of the West Indies, were interdicted; and I am therefore led to conclude, that, to avoid the stronger exciting causes is, to a great extent, to escape the disease.

Clifton, Bristol, September 1816.

III.

Case of Pneumonia with Fever of a Bilious Type. By William Lucas, Surgeon, Stirling.

In the month of September 1816, I was called in by a country surgeon, to the north of Dunblane, to consult on a case of hepatitis (as he supposed) occurring in the person of a respectable farmer residing at Kinbuck. On my arrival, Mr Stewart, the very intelligent practitioner in attendance, expressed his doubts as to the disease being hepatitis, but stated that the symptoms exhibited in the course of the disease, resembled hepatitis more than any other complaint. On examination, I found our patient evidently in a state of convalescence, but labouring under great depression of spirits, arising from an idea he had conceived, and which he fondly cherished, and in which, also, he was most religiously confirmed by the old medical *doctoresses* of the neighbourhood, that he was labouring under a consumption, of which he must infallibly die. I found him free from fever, pulse 65 and soft, respiration 18, free and easy, belly natural, and complaining of nothing but a pain (of which more hereafter) which was totally distinct from the disease from which I thought him now convalescent. On inquiry what symptoms the disease had manifested at the period of its attack and subsequent progress, I was informed that the disease, which he attributed to cold, was ushered in with rigors, alternated with flushings of heat, attended with severe cough, violent pain in the left side of the chest, laborious breathing, and all the other well known signs of pneumonic inflammation. To subdue these symptoms, it was found necessary (and the disease required it) to bleed three times at the interval of a day each time, to the extent of twenty ounces at each bleeding. This vigorous treatment was (as might be expected) attended with the effect of subduing the disease, and completely breaking its force.

The circumstance which occasioned the disease being mistaken for hepatitis, was, that, at the accession of the disease, the skin, as also the adnata of the eyes, assumed a dingy yellowish appearance. During the progress of the complaint, likewise, the bowels were very irregular in their action; and a smart dose of jalap and calomel was invariably attended with the effect of bringing away an immense quantity of highly fetid and bilious feces, and of producing the most signal relief. Indeed, it resulted from my inquiries, that our patient was habitually of a disordered state of bowels, so much so, that at times a very small dose of a purgative medicine affected them violently; while, at other times, it required an immense dose even to move them. The blood also exhibited that particular colour which results from an intermixture of blood and bile. On the supposition, likewise, of its being an hepatic affection, the surgeon in attendance had put the patient under a course of mercury, which had produced a salivation,—which was the state of affairs when I saw him.

From the present condition of our patient, but more particularly from the result of my inquiries, being thoroughly convinced that our patient, at no period of the present affection at least, had ever laboured under hepatitis, I ordered the salivation to be checked immediately, and, for that purpose, while in the house, saw administered a dose of magnesiæ sulphas dissolved in a large quantity of water. By this time, through the agency of the general bleeding, and the topical application of leeches, the symptomatic difficulty of breathing was completely subdued; but he still complained of a pain in his *left* side, of so curious a nature, as to require a particular description. This pain, which was aggravated by coughing, though, for very obvious reasons, not by the respiratory motions, occupied about an inch in length of the cartilaginous extremity of the first left false rib, and was so completely circumscribed, that, although it felt morbidly painful on pressure, yet pressure at the distance of a hair-breadth above or below the part affected, or between the cartilage and interior parts, (for from the emaciation, this could be easily done), produced no pain. Our patient had received a blow on this part, (for how long previously I cannot say). Some time before, to remove this affection, a large blister was applied without effect; and conceiving the cartilage to be in a state of inflammation, I ordered the immediate application of half a dozen of leeches, which was attended with the effect of relieving the pain completely. Our patient is now well, and has assumed his ordinary avocation of a farmer and cattle-dealer.

This case certainly afforded me a very instructive lesson; and were I called upon to give a name to this singular affection, I would call it pneumonia, conjoined with a fever of a bilious type.

IV.

Case of Diseased Arm. Communicated by ALEXANDER KENNEDY, Esq. Madras. *(With an Engraving.)*

At Tanjore, on the 9th of February 1796, Piermaul, a Collery, from Tondiman's country, aged 35 years, came to ask my assistance for a tumefaction of his left arm, of which the following is the description and history.

It measured round the thumb and outside of the wrist, - - - - -	1 foot	4½ inches.
Round the arm above the wrist, -	1	5
Half way up the fore-arm, - -	1	7¼
Below the elbow joint, - -	1	7
Round the elbow joint, - - -	1	2½
Just above the elbow joint, - -	1	4

This swelling terminated half way up the humerus; but he said that it was both rising further up the arm, and that the arm was also growing every day larger and heavier. The appearance of it, both in size and shape, was monstrous. The skin was rough and scaly. The enlargement seemed to be principally in the muscles, with some thickening of the skin. It had to the eye every appearance of being a swelling of the same kind as that described by Dr Handy, under the name of the disease of Barbadoes, or what are called, in the East Indies, Cochin legs.

Upon examining the axilla, he complained of pain upon pressure, and, though no swelling of any of the lymphatic glands could be discovered, there was evidently a considerable thickening of the parts there, when compared with the axilla of the right side.

The circumference of the right arm, at the thickest part below the elbow, was 8¼ inches, and just above the elbow-joint when the arm was extended, 8 inches. The man was otherwise in perfect health. He carried this overgrown limb slung round his neck in a cloth, which at some little distance looked as if he were carrying a young child in it. He complained very much of its cumbersome weight, and was very earnest in entreating that he might be relieved from the load of it, by its being cut off. He imputed the origin of it to the following accident. About six months before, while in the act of discharging a matchlock, it burst in his hand, by which his left arm was much wounded. The principal wound was upon the inner side of the joint of the elbow, with five smaller ones on different parts of the fore arm; these last healed up in about three months, after having discharged pus moderately; but the wound on the joint was open for upwards of four months, during which time it discharged great quantities of matter. About 2 inches of the head of the ulna then came away, after which the wound healed up.

On the day of the accident, a swelling came on, which he described as not very considerable in point of size, though it extended from the points of the fingers to an hand's-breadth above the elbow. It was at first exceedingly painful; but a rag dipped in cold water having been kept constantly applied to it for some days, the heat, pain, and throbbing, went almost entirely off. This swelling, he said, never went down; and, at the time the wounds on his fore arm were healed up, he described it to have been of such a size, as to make the left arm appear about twice the bulk of the right one. At this time an itching and sense of pain began on the back of this hand, and at the roots of the fingers, and the swelling of the hand began to increase rapidly. The itching and sense of pain then attacked the outside of the wrist, and the swelling after this spread itself more than half way up the fore arm. The itching and pain then began anew in the upper part of the fore arm, and the swelling spread itself up to the joint. And lastly, the itching and pain began above the elbow joint, and the swelling followed, as it had done in the former places. The itching still continued in all these four places, but is most troublesome in the last station; and, though the whole of the arm was still increasing in size, he said that it increased most rapidly above the elbow, where he also complained of a considerable degree of constant pain.

Finding that the swelling was actually increasing, and also rising up towards the axilla, I resolved to take it off. The amputation was performed on the 20th of February, and the man returned to his home on the 21st of March, to all appearance perfectly well. A very accurate drawing of the man, and his diseased limb, had previously been made by my friend the late Baron Reichell.

Not having the means of weighing the limb after the operation, we could only guess at the weight of it; but all who were present judged that it could not be less than 25 or 27 pounds weight, perhaps even more.

Upon cutting into the muscles of the arm after it was removed, the flesh of it appeared of a colour something between the colour of fat and the colour of the flesh of an unboiled fish. A vast quantity of serum flowed from it, which, together with its colour, led us to compare it to an immense large water-melon. This fluid was pure and colourless, and without the smallest admixture of red globules; nor did the limb look as if it had ever contained a particle of red blood. The larger vessels had completely emptied themselves during the operation; but in cutting down to the bone afterwards, we did not find even a drop of red blood.

The man returned in about three months, and showed me the stump, which had no appearance of a return of the disease. The axilla remained, as I have described it before, a little thickened. I saw him also about a year afterwards, when there was not the smallest appearance of any return of the disease.

At Tanjore, in the month of August 1797, I took off the middle finger of the right hand of a woman about 30 years of age, which was monstrously enlarged by a disease, to all appearance the same as Piermaul's; only that, during its increasing, she did not complain of the itching. It came on without any evident cause. The finger was taken out of the metacarpal joint, and the cure completed in a few days.

V.

Dr Löbenstein-Löbel's Proposal of a New Method of Operating for the Cataract. Communicated by Dr VON EMBDEN.

IN operations for the cataract, keratonyxis, as well as extraction and depression, which the author has had frequent opportunities of performing, the idea struck him, whether extraction might not be performed in that place where ocular surgery directs the depression to be made, viz. one or two lines distance from the cornea through the sclerotica. In the belief of this general notion, he was confirmed by the following most remarkable accident, which happened to a boy about five years of age, at Holycross, a small distance from Naumburgh. This boy, playing with another, with a penknife, which the other endeavoured to snatch from him, drew it quickly back, and happened to run it into his eye. He set a-screaming most violently; and, the parents running to him, immediately sent for the author from Naumburgh. On his arrival, he examined the boy, and found a penetrating incision, of about one-sixth of an inch in length, in the sclerotica, one or two lines from the cornea, towards the bottom of the bulb. The boy having all the time held a folded handkerchief before the eye, the crystalline lens was found to have come out upon it. Between the lips of the wound Dr Löbel thought he saw small fragments of the lacerated capsule: the aqueous humour had escaped, and the cornea appeared collapsed. Having thus minutely examined the eye, the author considered it as lost, as the sclerotic and choroid coats, the zonula Zinnii, and the vitreous humour, must unavoidably have been injured by this penetrating incision. The boy moaning greatly, and complaining of much pain, and being of a plethoric habit, the eye was directed not to be opened; four ounces of Goulard-water were prescribed, in which cloths were to be dipped, and applied lukewarm to the closed eye. An emulsion of poppies, with nitre, was also prescribed, an antiphlogistic regimen inculcated, and all solid food prohibited for eight days. He was also ordered to lie rather low, on his back or left side, and the only window in the room in which he lay was hung with cloths, besides the shutters being shut, so that even the smallest ray of light was excluded. Sugar water, with some cream of tartar, was the only beverage he was permitted to take.

On visiting the boy again, on the third day after the accident, Dr L. was greatly surprised to find, that he felt not the least pain in the eye, and that his pulse was not at all feverish, but quite regular. The eye-water was ordered to be continued but twice a day, the emulsion with the nitre was omitted, but the cream of tartar drink persevered in. After four days more, the boy was allowed to get out of the bed, and sit sometimes in a chair; but he was desired to be kept from stooping, or leaving the dark chamber. The diet prescribed was to be continued until the tenth day; nor did Dr L. venture to open the eye before then. On revisiting the patient on the tenth day from the accident, a little daylight being let in through the window into the patient's room, he placed the boy with his back to the window, and then cautiously and fearfully opened the injured eye, covering the healthy one with his right hand, and asking the child, Whether he could see? How agreeably was he surprised to find that he could not only distinguish the white wall, but also a whip hanging on the same! He now permitted him to see, for about four or five minutes, in the same position, in order that the affected organ might not be too violently affected by the operation of the light, but become gradually accustomed to it; then turning the boy more with his left side towards the window, he examined the condition of the morbid eye, and found that the cornea had almost recovered its convexity, but that the pupil was somewhat larger than that of the healthy eye: The albuginea was rather red, and only a bluish red streak showed itself in that place where the penetrating incision had happened. The eye was now tied up again with a dry compress, the fluid regimen continued, and the boy ordered to remove the bandage every morning for half an hour, and to see with the eye under a green eye-screen. On visiting him again after six days, the cornea had fully recovered its natural shape, the pupil was of the same size with the other, the bluish red streak had gone off, and the patient, seeing clearly and distinctly all objects, was discharged as perfectly cured, the author being much astonished at his not having lost his eye and vision.

This fact, however, corroborated the author in the idea, that depression and extraction might be made much easier through the conjunctiva than through the cornea. He thinks this operation promises the following advantages.

1. It would be chiefly indicated in cases where neither depression or keratonyxis can be made with success, *e. g.* when the capsule, half or a whole line thick, is morbidly indurated, or when the lens is very large, and cannot be broke down.

2. Neither prolapsus of the iris nor iritis would be to be dreaded, which, in extracting the cataract through the cornea, is frequently the case.

3. The reunion of the wound would be more expeditious than on making the incision through the cornea, as the upper and lower eyelids would close the labia of the wound more intimately. The incision in the bulb would have to be made many lines lower down in the conjunctiva than the depressing needle is commonly thrust in; and this method might thus be called extraction through the posterior chamber.

4. The point of the knife used in extraction should be pressed and moved towards the lens, and, in order not to injure the iris with it, it should bs carried vertically through the eye, right opposite the place where it entered, when, instead of applying the pressure usual in the common method of extraction, in order to carry the lens through the pupil and opened cornea, the upper eyelid would only want a little rubbing, and a gentle

pressure. By this manipulation, the lens will, for a certainty, descend through the incision and the conjunctiva, and the capsule follow it; or at least the latter will be absorbed if it be thin, and lacerated by the point of the knife. Should, however, large fragments of the capsule be perceived to swim about, they might be carefully removed by a small pair of pincers.

Dr L. thus proposes this method in such cases where keratonyxis and depression are contraindicated, and where extraction is the only resource, or where adhesions of the crystalline exist. As to the objections which might be taken from the unavoidable læsion of the conjunctiva, sclerotica, zonula Zinnii, and corpus vitreum, he is persuaded from experience, that, by proper management, and due medical care, these cannot be so dangerous as to influence us: For, in the first place, if they were so, the greater number of depressions must prove much more unsuccessful, which is really the case; and, secondly, in the above case of injury with the penknife, in which he most likely pressed the crystalline through the wound by the pressure he caused by holding the folded handkerchief before the eye, and where he, by his crying and screaming, caused determination to the head, and the injured organ, the boy must have lost his eye and vision, through the combination of such inimical circumstances.

The author concludes with conjecturing, that Kerkringius, Burhius, Taylor, and Woolhouse, made use of this method, when they boasted of having restored a young and acute vision to aged people, by removing the corrupted and turbid humours of the eye, and replacing new ones in their stead.

VI.

Remarks on some Remedies which are used in Fevers. By RICHARD LANPHIER DRAPES, Member of the Royal College of Surgeons in London, &c.

If the editors should think this paper worth a place in their excellent Journal, they will oblige a lover of the profession by giving it publicity. The observations are the experience of some years, but more principally made during the time of an epidemic, which has raged in this town and neighbourhood during the latter part of the summer, and the autumn of the present year.

But, without further preface, I shall state the remarks I have made on the effects of various remedies, which are at this time most commonly prescribed in fevers; and shall be happy if they contribute, in the smallest degree, to the dissemination of that method of treatment, which has lately been found most successful.

Emetics. Many physicians are in the habit of prescribing an emetic on the first accession of a fever; expecting by this means to interrupt its further progress. Whatever benefit might be obtained from this practice in a few particular cases, I am convinced, from experience, that when used, without distinction, they have most frequently proved injurious, and have seldom failed to aggravate the symptoms they were designed to remove, in a very obvious manner. The great concussion they give the whole system, particularly the brain, almost invariably increases the violent pain so often felt in the head, and especially over the eyeballs; and this, it is to be presumed, by increasing the morbid action of the vessels of the encephalon. The debility, too, which succeeds their effects on weakly habits, is a frequent retardation of the patient's recovery. If emetics have been found serviceable for headachs which are sympathetic with the state of the stomach and primæ viæ, it is drawing a false conclusion to suppose they will remove 'dolores capitis' in fevers, where the head itself appears to be the primary seat of the disease. The only cases in which emetics are admissible, are, I imagine, those in which an obstinate vomiting takes place, owing to some crudities in the stomach which require to be evacuated. For this purpose, the mildest are generally preferable, such as an infusion of Anthemis nobilis; but they should be used very cautiously, when there appears to be a morbid accumulation of blood in the head. On the whole, as a general remedy, I cannot approve of emetics.

Diaphoretics. The great reliance which practitioners in general place on sudorific medicines, through the whole course of continued fevers, renders it necessary to say a few words on this subject. I believe it is on the principle of the heat of the body being morbidly increased, owing to obstructed perspiration, that sudorifics are prescribed, for the purpose of removing this obstruction, and of course lowering the temperature. However, I conceive this practice is not well founded. If the preternatural heat is owing to the presence of inflammation, diaphoretics, which, before they can have the desired effect, almost always increase the morbid action, must obviously have an injurious tendency. Besides, as we have other means of lessening vascular action, and reducing morbid heat, without being attended with the same inconveniences as sudorifics, (particularly among the poor), I do not look upon the latter to be at all necessary in the greater number of cases; especially as we every day see patients attacked with fever completely recover, without there being the smallest tendency to a diaphoresis during its whole course. Where these medicines have been chiefly relied on, I have always observed the disease to be much protracted, and the cure extremely tedious.

Phlebotomy. The result of a few cases, in which I have employed the lancet, induces me to think highly of its efficacy as a remedy, in most cases of continued fever; and I have no hesitation in giving it as my opinion, that, when we can divest ourselves of the prejudices of education, it will be much oftener resorted to than it is at present. We are cautioned against blood-letting, except when the patient is of a full plethoric habit, and robust constitution; but experience convinces me that it is attended with the most decided benefit, even when employed on subjects of a contrary description. I have never seen any bad effect follow such practice when employed in time, and regulated according to its effects; but, on the contrary, a speedy remission of all the symptoms, and a rapid recovery, were almost invariably the consequence. The great debility so often observed in fevers, is only sympathetic of a derangement of some of the internal organs; and dissections prove that a degree of inflammation, particularly of the brain, is always present. This, along with the success attending the practice, sufficiently warrants us in violating those precepts which restrict us in the use of the lancet. What man in his senses, (unless, indeed, he is shamefully ignorant), will refuse to bleed a person attacked with inflammation of the bowels, pleura, &c. merely because he is of a delicate, spare habit? and why not bleed in fevers, where inflammation is obviously present also? A copious bleeding, at the onset of a fever, very frequently renders the employment of other remedies unnecessary.

Purgatives. The utility of purgative medicines in fever can be denied by no one. However, the generality of physicians place too little dependence on these, and trust too much to other remedies. I know of no general means attended with so much success, as the liberal employment of cathartics. During the fever which has prevailed here for some time, purgatives, when relied on as the principal means of cure, have seldom failed to be followed by the most beneficial effects. They should be given in large doses, and often repeated, till the patient becomes convalescent, which is generally in a very few days from their first employment. When given, as is commonly the case, merely with a view of acting as aperients, their effects are only trifling; but when administered with sufficient freedom, and, if I may be allowed the expression, with a determination of reducing inflammation, their curative powers are often astonishing. If the state of the stomach allows the exhibition of saline purges, I generally give them the preference.

With respect to many other remedies commonly employed in continued fevers, I can say but little in addition to what is contained in every work on these subjects. I am in the habit of using partial cold ablution, *e. g.* of the face, neck, and superior extremities; by which the patients have always expressed themselves to be considerably refreshed. It diminishes very much the pain in the head, and contributes to reduce the almost insufferable heat.

From what I have said, it will be perceived, that I consider blood-letting and purgatives to be most entitled to confidence, of any general remedies that I am acquainted with. According to circumstances, I employ them either separately or combined. It was the judicious work of Dr Mills on Fever, that first directed me to this mode of practice; and, after an extensive trial of it, I never had reason to repent my having adopted it: But, on the contrary, when swayed by the opinion of my elders in the profession, and fearful of departing from the established methods of treatment, I have had reason, more than once, to regret my want of sufficient firmness. The man of most experience is not he that has practised for a long series of years, or that has attended the greatest number of patients. If this was the case, our nurse-tenders, who see a much greater number of sick than any medical man, would be the most experienced physicians we have. But the fact is otherwise. The man of experience, old or young, is he who, at the bedside of his patient, studies the various symptoms of the complaint; marks its progress; assures himself of its remote, predisposing, and proximate cause; compares it with the cases he has seen before, or heard or read of; makes himself acquainted with the constitution, peculiar habits, and idiosyncrasies of the invalid; and who, treasuring all these in his mind, reflects, according to the true principles of medical science, on the properest 'methodus medendi.' He attends to the operation of the medicines he prescribes, and directs his further practice accordingly. This alone is the man that can have experience; and not he, who, in his daily routine of practice, depends on his collection of medical receipts, and whose prejudice is such against what he terms 'innovations,' 'mad experiments,' &c. that he obstinately shuts his eyes against the most important improvements, and still perseveres in his old way, administering, indiscriminately, his ' cure for the cough, ' or ' cordial for the cold, ' in defiance of ill success.

Ross, County Wexford, October 31, 1816.

VII.

Contributions to Diagnosis. By MARSHALL HALL, M. D. &c. *Contribution Second; containing,* 1. *An Instance of Permanent Spasmodic Contraction of the Muscles of one side of the Face.* 2. *Remarks on the Character and Cure of Sycosis.* 3. *The Description of a Particular Ulcer which appears on the Nose.* 4. *The Suggestion of a Mode of Preparing and Preserving Vegetable Remedies.*

1. A CASE of permanent spasmodic contraction of the muscles of one side of the face.

Miss J——N, aged 19.—Two years ago, in the winter season, the face became affected, during the course of one night, in the following manner. All the muscles of the right side of the face were drawn into a state of spasmodic contraction; the sensibility of the skin became much impaired, the contact of an external object inducing a feeling of numbness: there was a degree of swelling, and considerable pain; and a sense of rigidity was felt in the muscles of the right side of the neck.

The muscular contraction was permanent, and very considerable; the right angle of the mouth was drawn downwards; the retraction of the integuments, the effect of muscular action, and usually observed extending from each nostril obliquely downwards, is, on the right side, very deeply marked; on the left, it is seen in its natural state. The tongue, when protruded, is drawn a little towards the right side; the point of the nose is considerably so. The right eyebrow is drawn a little lower down than the left one; and two small dimples, the effect and evidence of muscular contraction, are seen immediately above it. A dimple in the chin is also distinctly marked, and it is drawn considerably to the right of the mesial plane of the face. Articulation was at first very indistinct, and is still so in some degree; the letter *S*, especially, is pronounced with difficulty, and participates in the soft sound of *th*. There was no difficulty in deglutition; but considerable inconvenience occurred during mastication, from a tendency of the bolus of food to pass and collect into the right side of the mouth. On closing the right eye, a degree of tightness is induced and felt at the right angle of the mouth; this tightness is *seen*, even when the patient speaks with the right eye perfectly closed. On drawing down the right angle of the mouth, by an effort of the muscles of this part of the face, the upper eyelid of the right eye is also drawn sensibly downwards, and the eye is partially closed. In the first instance, this eye was closed with difficulty.

The state of contraction of the muscles is seen much more distinctly; and the deformity induced is much greater, on speaking or laughing, than when the patient is in a state of tranquillity.

At present the contraction of the muscles is much less than at first. The sensibility is perfectly restored. The diminution of symptoms took place during the administration of electricity, the operation of blisters, and the exhibition of an emetic, followed by purgative medicines.

This affection was considered by the patient as an effect of taking cold. The swelling and pain were deemed an attack of toothach, but without reason, as there is no decay of any of the teeth. Before and about the period of the attack, pains were experienced in both arms and wrists, and were considered rheumatic. During two years previously to the accession of the affection described, this young lady had experienced some general indisposition, having been feeble, nervous, and subject to difficulty of breathing and palpitation of the heart. The catamenia had been somewhat irregular. The ancles were affected with œdematous swelling in the evening of each day.

The above case is deemed particularly interesting, as it establishes a distinct diagnosis between a *spasmodic affection*, and a case, very similar in appearance, consisting of a *paralysis* of one side of the face; a distinction which, it is thought, has been sometimes neglected. A further diagnosis, to which the practitioner must attend, consists in the distinction between a primary paralysis of the muscles of one side of the face, occasioned by the agency of external causes; and a secondary paralytic affection, the consequence of internal pressure on the brain.

2. Remarks on the character and cure of Sycosis.

Sycosis occurs as a transient and as a permanent affection. The author is acquainted with two persons, in whom an appearance of sycosis is apt to recur on the most usual effect of exposure to cold. The affection continues for ten days or longer, and is removed gradually. It usually occupies some part of the beard on the upper lip. It has not been examined in its incipient stage. In the two cases about to be described, the affection has been more permanent, having continued in one during seven, and in the other during eleven years. In these cases, too, the affection was seated principally on the upper lip, pointing out the propriety of employing the expression of Celsus, '*in barba*,' in preference to that of *Sycosis menti.*

J. J. aged 54, a framework-knitter, has been subject to the affection of the upper lip, (the appearances of which are about to be detailed), eleven years. Its commencement cannot be distinctly described. At present the bottom part of the internal nostrils is slightly sore and excoriated. Under the nostrils there is an irregular and interrupted scab on the borders and base in general, of which, there is a little induration, thickening, and redness of the skin. Surrounding this part, there are a number of distinct small suppurations, of which the following circumstances may be observed.

The centre of each of these points of suppuration is observed to be occupied by a hair. This hair is surrounded by a little white or yellowish puriform matter, about half a line in diameter; and, in its turn, surrounded by redness, tumour, and pain of the integuments. This suppuration does not penetrate to the root of the hair, which still remains when the fluid is pressed from the little cavity. The scab under the nostrils is sometimes removed, and the subjacent part is then occupied by a number of distinct points of suppuration.

The formation of pus is preceded by inflammation, and an acute sense of itching and springing. The affection is usually aggravated in the summer season. No medicine, or application, has ever proved of material or lasting benefit.

Mr I. aged 24, first experienced a little excoriation about the nostrils, and some part of the following affection of the beard, seven years ago. The first point affected was the bottom of the right nostril; afterwards the eruption extended to the right part of the upper lip, subsequently to the left, and ultimately to the chin, and, in a slight degree, to the eyebrows.

In the first instance, minute suppurations appeared at points on the surface of the lip, of which each was occupied distinctly by a hair. A small portion of whitish pus was formed, increasing in magnitude during about four hours, and attended by an itching pain, which was relieved by washing with cold water.

Sometimes there was a degree of redness, but sometimes this was entirely absent. In every instance, the removal of the purulent matter leaves a small pit, the centre of which is occupied by a hair. The bursting of the suppurating point is followed by the flow of a thin fluid, which concretes, and forms a thin scab, removeable by washing with water.

At present, there are permanent induration, redness, and tumour, along the bearded part of the upper, and immediately under the lobe of the under lip. On these inflamed parts, a little pus sometimes forms superficially, the centre of which is not occupied by a hair; but, in each distinct suppuration, the appearance is invariably as already described. A point, occupied by a hair, is at present seen near each eyebrow.

Having observed the fact, that the centre of each of the minute suppurations described was occupied by a hair, and that the affection attacked those parts of the body only which are furnished with hairs,—as the scalp, the upper lip, the chin, the eyebrow,—it occurred to the author's mind, that this cutaneous disease might be essentially an affection of their roots or bulbs, and that, if they were slowly but effectually plucked from their sockets, the tendency to future suppurations of the part might cease. The experiment was accordingly made in this patient, on the part immediately under the small lobe of the under lip. It succeeded perfectly, and the part became quite well, as from four to six hairs were plucked up from day to day. In this state the patient passed from under the author's care, fully determined, however, to persevere with this mode of cure. Indolence and carelessness prevented the patient, whose case is first described, from trying a plan of cure, which, like the many others he had employed, might prove unavailing.

3. Description of a particular ulcer which appears on the nose.

A small ulcer, affecting some part of the surface of the nose, and possessing the following characters, has occurred in four patients who have fallen under the author's observation. It has not, he thinks, been described. It must be distinguished from cancer, syphilis, sibbens, lupus, &c.

This ulcer is slightly irregular in its circumference, but approaches the circular or oval form; the edges are little elevated, rather rounded, scarcely discoloured; the surface is uneven, the granulations moderately elevated, and rather pale in colour; there is no subjacent or surrounding tumour, or induration; no pain; no increased sensibility. This ulcer has appeared in two cases on the ridge or side of the nose; in two other cases it has divided the alæ nasi. In none, however, has it appeared to penetrate deep into the flesh.

Of the two cases which appeared on the upper surface of the nose, one was cured by the ung. arsenici, the other by applying the nitras argenti, after the former remedy had appeared ineffectual. One of the cases, which divided the alæ nasi, was treated with the ung. arsenici, which seemed to prove the cause of a violent attack of erysipelas of the head; the other case healed under the employment of a stimulating ointment, not specified in the author's notes. Both the two last cases occurred in very old persons.

This ulcer is distinguished from other ulcers of the nose, 1. By the character given; 2. By being unattended by morbid redness, induration, tumour, sensibility, pain, subjacent disease, or affection of the bone; 3. By its slow progress; and, 4. By its yielding to the local application of escharotics or stimulants.

Dr Dickson, formerly the author's colleague as clerk in the Royal Infirmary of Edinburgh, will remember one or more of the instances of ulcer of the nose, to which allusion has been made in this paper.

It has not hitherto occurred on any other part of the face. My friend Mr Toogood has also seen this affection in two instances. He has favoured me with the following particulars of them. Mrs R., aged 82, was affected, some years ago, with an ulcer on the nose, which was removed by the application of the lunar caustic. This ulcer recurred about two months ago. It was situate on the point of the nose, was of a circular figure, about the size of a small sixpenny piece, unattended with pain, swelling, induration, or redness; it had an irregularly granulated surface, of a pale red colour, which became covered with a whitish incrustation on exposure to the external air. It healed under the application of a solution of sulphate of zinc. Mr Toogood witnessed a similar case about fifteen years ago. It was situate on the upper part of the ridge of the nose, was long treated with emollient applications without advantage, and at length cured by being touched with the sulphate of copper.

4. Suggestion of a mode of preparing vegetable remedies.

It has long been an object of regret, that all the modes of preparing and preserving the vegetable remedies are objectionable, either because the process itself injures the remedy, or because its subsequent preservation is imperfect. Dried vegetable remedies, extracts, tinctures, infusions, and decoctions, are all liable to one or both of these objections. And it is a great desideratum in pharmacy, to discover some mode of preparation that may be free from them.

The plan which the author would suggest for trial, is that of preparing and preserving these substances, without subjecting them to the previous operation of any external agent whatever, by which their virtues may be impaired. In the case of digitalis, cicuta, hyoscyamus, &c. he has taken the fresh herb, collected free from dew, and, having rubbed the leaves into the finest pulp or paste, he has simply formed a sufficiently consistent mass, by the addition and careful intermixture of dried soap.

In this manner the vegetable may be long preserved; and the advantage is obtained of administering it throughout the year in its pristine state, and without having previously subjected it to any process, or to the agency of any substance by which its virtues might be destroyed or enfeebled. It may be administered in the form of pills, or mechanically suspended in a draught or mixture.

Time must be allowed for subsequent experiments on this subject. At present the author contents himself with suggesting this mode of preparing and preserving vegetables to those members of the profession who may feel interested in the inquiry. Perhaps some other article may prove preferable to soap, with the view of preserving vegetable substances without subjecting them to the operation of heat, alcohol, or other chemical agents.

November 20, 1816.

PART II.

CRITICAL ANALYSIS.

I.

F. C. Hesselbach, M. D. in Theatro Anatomico Wirceburgensi Prosectoris, soc. phys. med. Erlang. Membri, Disquisitiones anatomico pathologicae de Ortu et Progressu Herniarum inguinalium et cruralium, accedit Descriptio instrumenti, haemorrhagiis sub herniotomia ortis et secure detegendis, et sistendis apti, iconibus illustrata. Latinitate donavit TH. AUG. RULAND, Med. D. et. Prof. P. O. 4to. Wirceburgi, 1816. pp. 80.

THERE are few surgical diseases which occur so frequently, and are more complicated, than inguinal and crural hernia. Their origin, diagnosis, and method of cure, have equally occupied the attention of the ancient and modern surgeon. When observations were made without accurate anatomical knowledge, considerable obscurity necessarily prevailed. Thus, for example, the epigastric artery was observed to be situated, sometimes on the inner, sometimes on the outer side of the hernia; but the cause of this variation was unknown, and from hence arose the difference of opinion among surgical writers, as to the direction of the incision of the inguinal ring. The accurate investigation of the tumour, formed by the neck and body of hernia in the external inguinal region, attention to its direction, and to the variety of the situation of the spermatic cord and epigastric artery in the healthy and morbid state, have removed all the uncertainty and fears which frequently filled the mind of the surgeon when operating for this disease.

The author of the work now before us, about ten years ago, published a short account of inguinal hernia; * and, after seven years further investigation and experience, this work appeared, now translated into Latin by Dr Ruland, with many valuable additions by the author.

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* Anatomisch-chirurgische Abhandlung über den Ursprung der Leistenbrüche, mit 4 Kupfern. Würzburg, 1806.

Most of our readers are aware that Hesselbach,* in his description of inguinal hernia, divides it into two species, the *internal* and *external*, or, in the more accurate language of Dr Barclay, the *mesial* and *lateral*. The *internal* inguinal hernia, is what is usually termed in this country *ventro-inguinal*, the viscera passing directly through the anterior ring; in the *external* inguinal, they protrude along the whole inguinal canal.

In the commencement of this work, we have an accurate description of the anatomy of the abdominal parietes, and of the usual places where hernia protrude; but we conceive it unnecessary to recapitulate this part, as it coincides with that of Scarpa and Cooper, of which, in former numbers of this Journal, we have given very minute details: We shall therefore proceed to lay before our readers a full account of the author's observations on the origin of inguinal hernia, and of his division of it into *external* and *internal*, which is of great importance in the treatment of this disease.

On the inside (central aspect) of the inguinal region, the author observes that there are three places favourable to the formation of hernia. The first is the nearest to the inner (mesial) angle of the triangular surface of the groin, lying opposite to the anterior inguinal ring, covered only by thin fasciculi of the internal oblique muscle; and, behind these, is the weakest part of the internal inguinal ligament. The peritonæum passing over it is loosely connected to it by cellular substance; but although this is the weakest part of the abdominal parietes, herniæ rarely occur at this place. The second is at the external (lateral) angle of the triangular plane, under which is the fossa for the inguinal vessels. This fossa is not guarded by any muscular fibres, but merely by the peritonæum and loose cellular substance; it is wider in females than in the male; and hence the more frequent occurrence in them of hernia at this part, or crural hernia. The third place where hernia originates, is at the posterior (lateral) inguinal ring. In most men this ring is closed by the peritonæum passing over it; but there are a considerable number in whom an oblong round opening is found, corresponding exactly to the posterior inguinal ring, into which the peritonæum penetrates like a membranous tube, and this opening arises from the upper part of the vaginal process not having closed after the descent of the testicle. At this part hernia in the male most frequently appears.

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* See Scarpa's Treatises on Hernia, p. 82.

From various observations, the author was convinced of the existence of these two species of inguinal hernia, each of which follows its own course, although they have a common exit from the cavity of the abdomen, by the anterior (mesial) inguinal ring. From the circumstance of the situation of their origin, he was led to denominate them *internal* (mesial) and *external* (lateral) inguinal hernia. Each of them is marked by particular appearances of the inguinal region, and therefore the surgeon will easily determine to which species they belong,—a point of importance with regard to the taxis, the application of a truss, and the performance of the operation.

External (lateral) inguinal hernia is much more frequent than *internal* (mesial) inguinal hernia. Of an hundred cases, more than ninety are stated to belong to the former. *External* (lateral) inguinal hernia is more frequently observed on the right side than on the left; the vaginal process of the peritonæum remaining longer open on the right side.

The author enumerates the following as the *Diagnostic symptoms of external inguinal and scrotal hernia.*

'*Tumoris Directio.*—Sacci hernialis collum, ab intestinis prolapsis extensum, parietem canalis inguinalis anticum, simulque integumenta communia incumbentia in tumorem oblongum attollit, oblique introrsum, deorsumque annulum inguinalem anticum versus decurrentem, atque ante hunc in tumorem corporis sacci hernialis desinentem. Cujus tumoris principium ante planum annuli inguinalis postici recta positum, annulum inguinalem anticum versus sensim, sensimque altius evadit, latiusque; quo plura intestina fuerint prolapsa, quoque majus sacci hernialis corpus evaserit, eo distinctius tumor obliquus cernitur, præcipue collo naturalem nacto longitudinem.

'Prout saccus hernialis et, ex consequenti, collum quoque sacci hernialis breviora evadunt, pariter tumoris longitudo minuitur, atque, canali inguinali licet penitus aboleto, planum tamen annuli inguinalis postici crurale, cumque hoc illa colli sacci hernialis extensi pars restat, quæ directionem tumoris obliquam, extrorsum sursumque tendentem, in regione inguinis externa manifestat; absque hac colli particula tumoris ad annulum inguinalem anticum ambitus æque, ac in hernia inguinali interna, orbicularis compareret.' p. 28, 29.

The author points out a cause of error in judging from the direction of the tumour alone, where an imperfect *external* (lateral) inguinal hernia is complicated with an *internal* (mesial): An accurate investigation will show the existence of the double hernia, the boundary of each species being marked by an intermediate depression or furrow; and if it should happen that either species is reducible, the existence of the other is the more evident.

The 2d diagnostic symptom is *the position of the fleshy bundles of the cremaster muscle.*—These are observed running over the anterior part of the hernial sac in an arched form; and the author says that he has not hitherto noticed them in the *internal* hernia.

3. *The situation of the spermatic cord and testicle.*—The vaginal process of the peritonæum is situated before the spermatic cord in its whole course, from the posterior (lateral) inguinal ring, downwards to the testicle; and the peritonæum, forming the hernial sac, advances in the same way, and retains its situation anterior to the spermatic cord and testicle.

'Quum jam herniæ scrotalis externæ saccus hernialis intra tunicam vaginalem communem solummodo ad testem usque descendere possit, consequens est, ut testiculus membrana vaginali propria involutus fundo sacci hernialis immediate subjaceat, et vasa spermatica extra saccum hernialem explicita parieti ejus postico applicentur, adeoque venæ spermaticæ extrorsum, introrsum vero vas deferens et in medio arteria spermatica disponantur. Quare sacco herniali profundius descendente testiculus æque, ac saccus hernialis, tunica vaginali communi inclusus nusquam evadere poterit, sed a sacci hernialis fundo magis etiam deprimetur; sed semper fere fundo, paulummodo retrorsum, subjectus reperietur. Hernia inguinali externa præsente funiculum spermaticum, cum modice illum intenderis, pone saccum hernialem positum exquisite invenies. Funiculi spermatici et testis situm, neque minus obliquam tumoris directionem, duo præcipua signa habeto, quibus ductus quodvis herniarum inguinalium genus secure continuo dignoscas.' p. 31.

4. *The situation of the epigastric artery.*—Considering the natural course of this artery, we are led to conclude that it should always be on the inner (mesial) side of the neck of the hernial sac in this species of hernia. This conclusion is warranted by the presence of the other diagnostic symptoms, for the fact can only be ascertained after death.

5. *The origin of the hernia.*—We learn from observation that herniæ sometimes arise without any evident occasional cause, or from one so slight, that we would scarcely conceive it capable of producing them: in this case the predisponent causes must necessarily have the chief influence in producing them.

'Tali modo hernia congenita, ad herniæ externæ genus referenda, sæpe oritur; quæ ab hac eo solummodo discrepat, quod intestina prolapsa et testiculus tunica sua vaginali orbus uno eodemque sacco contineantur; nempe tunica testiculi vaginalis fundum sacci hernialis efficit, ipseque testis fundo infra impositus est. Eveniente forsitan incarceratione saccus hernialis utrinque æquabiliter tensus est, neque ullum testis in sacci hernialis fundo vestigium; quo signo duplici hernia congenita ab hernia scrotali externa communi facile distingui potest.' p. 32.

6. *The preternatural structure of the body of the hernial sac.*—This only occurs in the process of the vaginal peritonæum, and never in internal scrotal hernia, because it is only in external hernia that the sac is formed of the process of the vaginal peritonæum.

'Quodsi processus vaginalis post partum apertus restiterit, atque exigua tantum sui parte extra annulum inguinalem anticum fuerit coarctatus, quin penitus claudatur; pars inferior adhucdum amplior tunicam testis vaginalem, superior vero accidente intestinorum prolapsu saccum hernialem constituet: tum vero tunica vaginalis et sacci hernialis cavitates parte coarctata quidem, sed nondum penitus clausa inter se correspondent, atque in tunica vaginali humor aqueus colligi consuevit. Qualicunque demum causa occasionali intestinorum sacco herniali contentorum portio per partem angustatam in tunicam testis vaginalem detrudi, ibique incarcerari poterit.' p. 33.

After describing the different parts forming the hernial sac, the author observes, that certain viscera are more frequently met with in inguinal and scrotal hernia of the right side, and others in that of the left side; and he then proceeds to the description of the treatment of *external* inguinal hernia.

'Cognito signus memoratis herniæ genere, chirurgus herniæ externæ medelam facile poterit administrare: quippe pressionem, reponendis intestinis prolapsis impendendam, pro directione, quam collum sacci hernialis ipsum sequitur, nempe oblique extrorsum, sursumque anteriorem cristæ ossis ilei spinam versus, dirigat, necesse est; collo autem herniæ valde brevi, et pariete canalis inguinalis postico abolito, pressionem fere ex antica parte retrorsum instituere oportet. Hernia rite reposita bracherio conveniente retineri, ejusque sequelæ averti possunt, ubi potissimum pila herniæ inguinali externæ longo sacci hernialis collo prodeunti ita adaptatur, ut non solum in annulum inguinalem anteriorem, sed in collum quoque et annulum inguinalem posteriorem pressionem exerat; quod si vero sacci hernialis collum perbreve fuerit, forma pilæ talis, fere sit, necesse est, qualis herniæ inguinali internæ convenit.' p. 35.

If strangulation of the hernia supervenes, and cannot be removed by any of the usual means, we must have recourse to the operation, on which point the author gives the following directions.

'Quum, præsente hernia externa, arteriam epigastricam inferiorem pone sacci hernialis collum sitam, in latere ipsius interno semper ascendere, constet, annulus inguinalis anterior, sacci hernialis collum, et urgente necessitate, annulus quoque inguinalis posterior oblique extrorsum sursumque absque ulla hæsitatione incidi poterunt.

'Quodsi vero annulus inguinalis posterior anteriori ex directo forte adponatur, quo scilicet fit, ut hernia inguinalis externa internæ reddatur similior, sique tali in casu chirurgus circa sectionis directionem dubius hæreat, via potius media est eligenda: nempe annuli inguinalis antici crus vel internum, vel superius ita in medio, rectaque sursum incidendum, ut sectio lineæ albæ abdominis sit parallela.' p. 36.

Of the internal (mesial) *inguinal and scrotal hernia.*

This hernia arises at the inner (mesial) angle of the triangular surface of the groin, where the peritonæum is extended into a slight oblong fossa, supported by the weakest part of the inguinal ligament and some fibres of the internal oblique muscle.

'Peritonæum igitur hoc loco causa quacunque occasionali vehemente magis tensum cum intestinis retro positis a parte postica antrorsum recta protrusum ligamenti inguinalis interni fasciculos inter et lacertos musculi abdominis obliqui interni carneos, ad latus funiculi spermatici internum tandem per annulum inguinalem anticum prolabitur, moxque ampliorem in saccum efformatur, qui integumenta communia in tumorem elevat, super annulo inguinali antico ambitus orbicularis forma comparentem.

'Collum sacci hernialis perbreve, immo brevius, quam in hernia externa esse possit; ligamenti inguinalis interni non minus, quam musculi abdominis obliqui interni foramen, per quod collum directione recta retro antrorsum ad annulum inguinalem anticum transit, orbiculare atque in aliis angustius, in aliis vero amplius est.' p. 37.

After some pertinent observations on the causes of the different appearances of this and the preceding species of hernia, the author proceeds to treat of the diagnostic symptoms, which he limits to three, viz. the situation of the tumour formed by the body of the hernial sac, immediately before the anterior (mesial) inguinal ring, the situation of the spermatic cord, and the course of the epigastric artery; and describes them in the following terms.

'Tumor.—Quum collum sacci hernialis sit perbreve, neque hæc hernia ita, uti externa consuevit, obliqua, sed recta directione a parte postica antrorsum per annulum inguinalem anticum prodeat, saccique hernialis corpus directe ante ejus collum ponatur, accidit, ut ne minimum quidem tumoris extensi sacci hernialis colli vestigium observetur: quare nullus tumor conspicuus est, præter illum, qui, corpore sacci hernialis productus, brevi ante annulum inguinalem anticum ambitu satis rotundo apparet. Jamque ipsemet colli situs, herniam internam proprius, quam externam, symphysi ossium pubis adjacere, indicat. Hoc tumore excepto, in sexu sequiore nullum herniæ internæ signum externum habetur.

' Funiculi spermatici situs.—Principio quidem saccus hicce hernialis ad annulum inguinalem anticum usque vaginali funiculi spermatici tunica communi excluditur; ad annulum vero inguinalem anticum inter funiculum spermaticum, tenuemque tunicæ vaginalis communis aponeurosin descendit, qua, licet imperfecte et inæquali firmitudine, circumdatur. Nempe stratum hujus vaginalis tunicæ communis tenuius lateri sacci hernialis interno, crassius vero lateri antico et externo incumbit. Fasciculi cremasteris carnei descendentes stratum tunicæ vaginalis communis crassius solummodo comitantur. Denique funiculus spermaticus aut in latere externo, aut in medio lateris antici externo situs est, ac vasa quidem spermatica sanguifera antrorsum, et vas deferens retrorsum collocantur.

' Arteriæ epigastricæ inferioris situs.—De hujus arteriæ situ, nisi signis præcedentibus diagnosticis, certus non evades; plerumque in latere colli sacci hernialis externo oblique introrsum, raroque lusu in ejusdem latere interno ascendit; atque hanc a cursu solito aberrationem in cadavere foemineo, herniam labialem internam exhibente, observatam supra, regionem scilicet inguinalem internam describens, jam memoravi.' pp. 39, 40, 41.

In the taxis of the *internal* (mesial) inguinal hernia, the pressure is to be made in a straight direction from before, backwards and upwards. The pad of the truss for retaining this hernia, can exercise no force on the neck of the hernial sack; but its action ought to be directed solely on the anterior (mesial) inguinal ring. In the operation, the surgeon requires to use particular attention, in order to avoid wounding the spermatic cord and epigastric artery; on which the author very judiciously observes,

' Ut funiculi spermatici laesio evitetur, sub cutis in latere herniae antico incisione directio obliqua, superne introrsum, deorsumque abiens, servanda est.

' Plerumque arteria epigastrica inferior in latere colli sacci hernialis externo, perraris tantum in casibus in latere ejusdem interno ascendit. Ergo plurimis in casibus hujus arteriae laesio, sectione per crus annuli inguinalis antici superius oblique introrsum sursumque facta, tutissime evitaretur; sed eadem incisione arteria quoque laedi posset, siquando interno colli sacci hernialis lateri adjaceret.—Quae aberratio quum nullo penitus signo cognoscatur, in quavis hernia interna crus annuli inguinalis antici superius medium rectaque sursum incidatur, oportet.' pp. 42, 43.

We have endeavoured to give a full account of the author's very accurate description of these two species of hernia, which we have been induced to extend to a greater length than we at first intended, from the importance of an accurate diagnosis, and from observing that he mentions some circumstances not so clearly explained by other writers. He next proceeds to the subject of femoral hernia; and, in an appendix, has inserted a description of an instrument for the discovery and stoppage of hæmorrhage from a wound of an artery in the operation for hernia; but for these we must refer our readers to the work itself.

This work is accompanied by seventeen engravings, from drawings by the author, which give a very accurate view of the anatomical structure and of the usual appearances of this disease; and they, in particular, illustrate the origin and progress of the two species of hernia, in a simple and intelligible manner. In some respects they possess a superiority over the plates hitherto published on hernia. Scarcely inferior to the original plates of Scarpa, in point of engraving, by representing only the parts essential for the explanation of the subject, they are reduced to a convenient and useful size, while they infinitely surpass in distinctness all attempts to reduce views of so complicated a subject to our octavo form.

Upon the whole, we consider this work as a valuable addition to our treatises on hernia; and trust that Dr Ruland will not be disappointed in the views which induced him to render it accessible to those who are not acquainted with the German language.

II.

Medical, Geographical, and Agricultural Report of a Committee appointed by the Madras Government, to inquire into the Causes of the Epidemic Fever which prevailed in the Provinces of Coimbatore, Madura, Dindigul, and Tinnivelly, during the Years 1809, 1810, *and* 1811: *of which* Dr W. AINSLIE *was President;* Mr A. SMITH, *Second Member;* Dr M. CHRISTY, *Third Member.* 8vo. London, 1816. pp. 170.

THIS is a most valuable little volume. It is almost a perfect model of medical topography. It is an inquiry into the nature of an epidemic fever, which was of several years duration, occasioning the death of no less than 106,789 persons, and ruining the constitution of many thousands. Such epidemics are not uncommon in our Indian dominions, and, at times, have been attended with the most unhappy consequences; and, therefore, we cannot conceive a more noble application of medical science, than the investigation of the causes of so much evil, and of the means of lessening or obviating them. The recommendation of this dangerous and laborious task to their medical officers,—the furnishing of them with every assistance to complete it,—and the leaving nothing undone which can render it successful—are obligations imposed upon the Honourable East India Company, by the circumstances in which they are placed. The benefits resulting to the natives from their being successfully discharged, is one of the circumstances which has a tendency to reconcile the occupation of these distant lands with the principles of natural justice. The very able manner in which, in the present instance, the medical officers have fulfilled that part of the great public duty entrusted to them, has given them a strong claim upon the gratitude of the Company, the inhabitants of the East in general, and of science.

In the first section of their Report, the committee give a geographical description of the provinces in which the epidemic fever prevailed, with some account of their climate in healthy seasons, of their agricultural products, and of the relative condition of their native inhabitants. The second section contains an account of the climate since November 1808, contrasted with that above mentioned, and of its effects on the cultivation of the soil. The district which engaged the attention of the committee, and which suffered most from the ravages of the fever, was the western side of the extremity of the peninsula of India, from Cape Comorin on the south, to the great southern ghauts of Mysore on the north; and from the chain of mountains which divides the peninsula longitudinally on the west, to the Coromandel coast on the east. This country lies between the 77° and 80° east longitude, and 8° and 11° 30′ north latitude. The province of Coimbatore is an open elevated country, about 900 feet above the level of the sea. Its soil is, in general, dry, and well cultivated; but, in the vicinity of the hills, there is much unhealthy, low, marshy ground. Its towns are well built and populous, and the situation of the inhabitants is comfortable. In the town of Coimbatore, cutaneous affections, ascribed to its well-water being brackish, are common amongst the poorer inhabitants, who cannot afford to bring it from the Noel, distant about a mile. Dindigul district is mountainous and woody, elevated about 400 feet above the level of the ocean. Its towns are not so well built, and its inhabitants not so comfortable. Madura is still lower. It is an open country, and very dry. Tinnivelly is considerably lower than any of the others, as it forms half of the point of the peninsula. It is, generally, an open country, but contains several waste and jungly tracts.

' The same peculiarity is to be observed in this, as in the Madura province, viz. that all situations lying at a certain distance from the hills are much higher and drier than those which are nearer to them; —a fact we had occasion, in several instances, to remark, on our journey from Madura to Courtalum, (*viâ* Strivulputtore), as well as to note the consequences of it, but particularly with regard to the villages of Tewancootsie and Culpettie, in the northern part of the Streevulputtoor talook. The latter, standing in a fine elevated country, was comparatively comfortable, and the inhabitants healthy; whilst the other, due west from it, and close to the high lands, was found nearly surrounded with wet ground, damp, ruinous, and almost depopulated.' p. 17.

Towards the southern and eastern extremity of the peninsula, are many salt marshes, four of which, formerly distinct, are now united together, owing to the late inundations, forming one great marsh ten miles in circumference.

' They are separated from the sea by high sand-hills, have no natural communication with it, and lie at unequal distances, of four to thirteen miles from it. In common years there is not much water collected in them; but, since the heavy monsoon of 1810, and more especially since the rains which fell out of season in February and March, they have been filled to a considerable depth, (five, seven, or ten feet;) and the water, by remaining long in a state of stagnation, has been productive of infinite mischief. In December 1810, the inhabitants of the different villages which are contiguous to these briny swamps complained that their houses were rendered uninhabitable; that most of their cultivated lands were flooded; and that the water had risen so high on their palmyra-trees, that they were prevented from drawing toddy. To remedy these evils, Mr Hepburn (collector of the province) gave orders that a cut should be made from the four united marshes to the Curnyar River, which rises in the Calcaud Hills, with a view of diverting the superfluous waters from the deluged country. The cut was made, and for a time answered the purpose intended; but the subsequent rains in February and March last, unfortunately, by occasioning fresh floods and a new pressure, choked up the opening. Since that period, and from the time of the weather becoming drier, every exertion has been made to drain the country, and relieve the suffering inhabitants.' pp. 21, 22.

The climate in common years is next minutely detailed, and well deserves the perusal of all who intend to visit our Indian settlements, or who are interested in medical geography. We extract the following description of a singularly favoured situation in these torrid countries, in the hopes of rendering it more generally known to the invalids of India.

The cool retreats of the province of Tinnivelly are Courtalum and Tritchindoo. Early in June, after the heavy rains of Malabar have commenced, is the proper time to visit the former. The climate is then truly delightful to the feelings of Europeans, and continues so till the middle of October.

'Previous to the conflux of the Tambarapournie and Sytar, the former is joined by several tributary streams. The latter, which is the smallest of the two, rises amongst the hills immediately north of Pooliery, at the eastern opening of the Airangowel Pass. Soon afterwards, it is united with several rivulets: The most remarkable of these is that which, by its Falls, creates the celebrated Courtalum Cataracts, and which rises in the mountains that form the southern side of a kind of recess, here produced by the retiring of the great ghauts, and distinguished for the singularity of its climate, particularly to be described in another part of this work. This recess is in width about twenty miles, and at its greatest depth, from its eastern opening to the Airangowel Pass into the Travancore country, about half that distance. The pass itself through the hills is very narrow, and may be reckoned in length, in a direct line, about ten miles: from its eastern extremity to the western ocean, it is nearly forty.

'Courtalum is not only the name of the Falls, but of a beautiful Sheva Pagoda, situated close to them, at the foot of the mountains. The Recess, or Valley, as it is called, has, of late years, been sufficiently cultivated; and the hills, which bound it on the north, west and south, are grand and lofty. The scenery about the Pagoda and Falls is sublime and picturesque, and bears a strong resemblance to some of the most romantic situations in Switzerland, where wood and water, rocks and mountains, combine to aggrandize the landscape.

'The greatest height of the lower fall or cataract is nearly 200 feet. There are two others, formed by the same stream, higher up the mountains, and not less beautiful and interesting, though much more difficult of access.' pp. 18—20.

'Owing to the great depth of the Courtalum Valley, as already described, it approaches so much nearer to the Malabar coast than other situations along the course of the hills, that those clouds, which under other circumstances would have expended their waters amongst the immense mountains, here pour a great part of their rains; extending to this recess, in a considerable degree, the climate of Malabar; with this favourable exception, that it is not at this time by any means so damp, notwithstanding the very luxuriant vegetation which is seen in every direction, and the showers that fall daily, attended with a strong cool west wind.

'The difference of the thermometer betwixt Courtalum and Palamcotah is, in general, about 10°; that is to say, while in June or July the temperature at the former is 75° at 7 A.M, and 79° at 2 P.M.;

it is at Palamcotah, at the same hours, 85° and 89°; so that, during the hot weather at the last mentioned station, the feeling of comfort experienced on quitting it, and visiting this charming retreat, is wonderful. Such is the bracing effect of the cool air here, that exercise can be taken without doors at any time of the day, and amusements pursued with as much pleasure as in England, as the sky is almost constantly overcast; and if a person does by chance get wet in a shower, there is no danger of his taking cold in consequence, so great is the natural dryness of the atmosphere.

'What conduces much to the restoration of invalids at this singular abode, is the little waterfal, under which most of the Europeans daily bathe. This cataract is, by a division in the rock above, separated from the greater one; and is not more than thirteen or fourteen feet high. The falling of the water, after the first shock is over, gives an indescribable feeling of pleasure. By its constant beating, it quickens the circulation, and produces a fine glow all over the body; and has, besides, the further good effects of dispelling languor, raising the spirits, exciting appetite, and promoting digestion, in a superior degree to any other kind of bathing that we are acquainted with. It has, in consequence of these virtues, together with the delightful climate of the valley itself, been the happy means of rapidly restoring many to health and comfort, who, previous to their visit to Courtalum, appeared to be hastening to their graves.

'But it will be necessary to remark, before taking leave of this wonderful recess, that, however excellent may be the climate here in the months of June, July, August and September, it is far otherwise during those of February, March, April and May. Partaking as it does of both monsoons, there is much rank vegetation in it; but, from its singular topographical position, it is altogether, or in a great measure, deprived of the salutary influence of the southerly winds, which alone, at this season, could purify the air, distempered as it then becomes by much moisture and unventilated jungle. The consequence of this is, that, in the last mentioned months, the valley is hot and sultry to the greatest degree, and never fails to be most unhealthy. Indeed, endemic fever, at such times, is as certainly met with here as at Gambia or Senegal.

'This peculiarity in the climate of the Valley of Courtalum we particularly beg leave to impress upon the minds of our readers, as it bears an exact resemblance to that which shed its malign influence over the southern provinces of the Peninsula about the end of 1810, and during the first months of 1811; when unusual rains occasioned inordinate moisture, and the deficiency of the southerly wind produced stagnation and morbific miasma.' pp. 56—60.

The committee next describe, with much precision, the peculiarities of the climate during November 1808; and the result is summed up in the following paragraphs.

'From the account which we have given of the climate of Coimbatore, Dindigul, Madura, and Tinnivelly, for the last three years, it will readily be allowed, that the different seasons, during that period, have varied much from their usual course; inordinate rains have succeeded to uncommon drought; the N. E. wind and Land-wind have been weak, as well as of unusual duration; the most distressing lulls have alternated with sudden and chill blasts from various directions;—and, last of all, and what appears to have brought the mischief to a crisis, heavy rains and close sultry weather have been seen to take place at those times which are usually distinguished by dryness, and those ventilating breezes, which exhale the superfluous waters from low and marshy situations, and dispel the dews and vapours which are sure to prevail after the ceasing of the N. E. monsoon. Thus there has been constituted an extraordinary and unnatural state of the atmosphere, everywhere unsalutary, in the tracts in which it was produced, or into which distempered miasmata may have been carried by particular currents of air.

'The stagnation, vegetable putrefaction, dampness, filth, and offensive effluvia, the natural consequences of what we have just stated, have proved evils of no small consideration, particularly in low or ill-ventilated situations.

'The second Member of this Committee, in travelling from Daraporam to Dindigul in the beginning of June, and on passing along the banks of several marshy tanks, as well on the western frontier of the first-mentioned district as in the Toddy-Comboo talook of the second, was assailed by a noxious and sickening exhalation, which somewhat resembled bilge-water. And the President and third Member experienced exactly the same effect, from similar causes, towards the end of the same month, in passing from Towerincourchie to Cottampetty in the Madura province; and again, for several miles, on the road leading through, and on the north side of, the large and beautiful town of Streevulputtoor in the Tinnivelly country.

'It can be easily supposed that a continuance of unseasonable weather, for several years together, must, with other bad consequences, have proved injurious to the cultivation of the soil. In Coimbatore, however, which is chiefly a dry grain country, in which superfluous water is quickly carried off into rivers and *nullahs*, this has not been conspicuous; and, by Mr Garrow's returns, it does not appear that any particular sickness has prevailed amongst the cattle of that district, of which he is the Collector.

'With regard to the Dindigul country, we had occasion, while there, to observe, in the month of April last, that so general was the sickness, and so great had been the mortality, that the *sumbāh* crop of paddy was actually, in some places, rotting on the ground, from want of hands to cut it down: and Mr Peter (Collector of the Madura and Dindigul districts) informs us, that many thousands of cattle have died in the different divisions under his management, since the epidemic first commenced; as much, we are inclined to think, in consequence of the unnatural state of the air, as from a scarcity of hands to feed and take care of them.

'In Tinnivelly we understand, from Mr Hepburn, that not fewer than 44,273 bullocks have died since the beginning of February last; not so much from any particular disease, as from an excess of moisture in the air, and a want of people to take care of them. Mr Hepburn has further informed us, that the great *péshanum* or *sumbăh* crop, which is gathered in February and March, was got up in a much less perfect condition than usual, from its being so frequently wetted, and from the inhabitants being under the necessity of cutting it down before it was quite ripe; owing to the dread they entertained, that, if they allowed it to stand longer, they would lose great part of it, from the violence of the rains. Such stunted and immature grain, when stacked, was apt partially to ferment and get heated, which rendered it a much less wholesome food than if it had been cured in a better state: and he further informs us, that so general has this calamity proved in the Tinnivelly district, that the greatest difficulty has been experienced in procuring the small quantity of sound grain required for seed for the cultivation of the present year. The dry grains, for the same cause, have also suffered much, and must, in consequence, have been rendered less nutritious.

'Having deemed it proper, at this part of our Report, to notice the circumstance of the crops of these countries having suffered much from unseasonable rains, and that the quality of the edible products had been thereby injured, we must here observe, that though the necessity thus induced, of eating somewhat less wholesome grain than usual, cannot be considered otherwise than as a great misfortune, yet we conceive that it must not be included amongst the causes of the epidemic fever, which had commenced at a period antecedent to the failure of the harvest: it certainly, however, may, by inducing debility, have contributed much to render the disease more frequently fatal.' pp. 72—77.

Fever was first noticed by the Collector of the Coimbatore division, Mr Garrow, in October 1809, in a marshy and proverbially unhealthy situation near the hills. From January to June 1810, it was peculiarly destructive. It received a check in January 1811; but, after untimely rains in February, it recommenced its work of destruction with great severity, and spread not only among those villages, the most liable from their low situations to be visited by such maladies, but to others lying much further east, high, dry, and, in common seasons, healthy. It is almost the universal opinion in Coimbatore, that it entered that district from the direction of the Pylney mountains.

In Dindigul, where it was not noticed till April 1810, the same opinion that the Pylney mountains gave birth to the evil is also general. In Madura, Dr Christy observed a fever to prevail as early as 1809, but only among the most miserable part of the inhabitants. In 1810, the disease became more general and alarming, and now spared neither the wealthy natives, nor Europeans; but it was most fatal in February, March, and April 1811.

'In this district, like the others within our range, the Pylney mountains are considered by the natives as the great cause of all their misfortunes. But here we find an extension of the epidemic, not, as in Coimbatore, from south to north, but from north to south. Here it has also been invariably remarked, that it was in low situations, close to the hills, such as at Towerincourchie and Sholavandum, that the fever first attracted notice, and that the rains and close weather, in February, March, and April, had the unhappy effect of diffusing the morbific miasmata over tracts further east than they had before reached, and comparatively high and dry. Divisions, however, nearer to the sea, or, rather, further from the range of mountains in this Collectorate, such as those of Shevagunga and Ramnad, have, in a great measure, escaped the disease altogether.' p. 83, 84.

'The Collectorate of Tinnivelly seemed, for a time, as if kind Providence had averted from it the mischief which was destroying so many thousands in countries lying but a short distance from it; but it soon appeared that the evil was only retarded. It is true, that, in the months of March, April, and May, 1810, as we are informed by Mr Hepburn, fever had attracted notice in the northern and western parts of the district: it was however trifling, and but of short duration; and no more was heard of it till the month of February 1811, when it showed itself very generally in the talook of Streevulputtoor (which is contiguous to the Madura province), and in Tencoushie, both of which lie near the mountains. Soon after this, it broke out in the vicinity of the sea and salt marshes, and committed great ravages in the Punjmahal and Calcaud talooks; and, lastly, it extended itself from Tencoushie to the more southern tracts, including the Pollams, and kept on its course all the way to the sea, but invariably proving most destructive in those villages situated nearest to the hills.

'From the above account, there will be observed this singularity, that, in the neighbourhood of the salt marshes, the disease made its appearance at a period prior to that at which it first began in places lying betwixt them and Tencoushie;—a circumstance which leads us to conclude, that, in these briny swamps of the Tinnivelly district, a separate source of the disease is to be looked for, from that which occasioned the sufferings of those inhabiting the more northern divisions of the same province.' pp. 84—86.

'With regard to the two opposite directions in which the distempered exhalations seem to have extended themselves in different parts of the Peninsula, and the cause or causes of these varying courses, we confess that we give our sentiments with great hesitation; as the subject not only involves in itself considerable difficulty, but naturally leads to some yet undecided points, and to the theories and opinions of certain ingenious men, respecting the propagation and diffusion of miasmata and contagion.

‘ We have repeatedly noticed, that great irregularity of seasons had taken place, throughout the whole of the southern provinces; and it is certainly allowable from a universal cause to look for a general result: but while the same description of unusual climate may have prevailed in all these territories, yet the lands themselves may have had localities or peculiarities, of such a nature, as, although under a common influence, to have proved productive of effects differing much in degree. Thus it is that a long-continued unnatural state of the air, operating upon the close and overgrown woods of the Pylney mountains, upon their unventilated valleys and stagnant marshes, could not fail to engender a more rapid and dangerous condition of the atmosphere than that brought about by the operation of the same causes on the drier and less woody plains of the eastern ranges of the Peninsula. In the same manner, and for the same reason, the changed constitution of the atmosphere has been creative of ill effects in the vicinity of the salt marshes of the Tinnivelly country, differing much in degree from those experienced in other states, which, though at no great distance from them, are otherwise circumstanced with respect to nature and situation.

‘ The Fever, which has occasioned so great a mortality on the Coromandel coast, was first purely endemic; and, in all probability, had the irregularity of seasons been of short duration, it would not have been much heard of beyond the sources from which it sprang: although we find, and that from high authority, that even the causes of endemic fever are sometimes carried, by particular currents of air, to a considerable distance: but on the disease having been rendered epidemic, by the same means which bring about this change in every quarter of the world, its nature, as usual, became in some respects altered. “ Fevers of this sort ” (says Dr Jackson) “ arise in particu-“ lar countries, or districts of a country. They travel in certain “ tracts: sometimes confined to narrow bounds; at other times they “ are more widely diffused. ” pp. 88—91.

The mortality was enormous, as appears from the following table.

Comparative View of the Population, and Deaths during the Epidemic, and the Deaths in common Years.

	Population.	Epidemic.		Common Years.	
		Deaths.	Centage.	Deaths.	Centage
Coimbatore, 16 months	596,606	22,451	3.75		
Madura, 12 months	245,654	24,626	10.	3.933	1.595
Dindigul, 12 months	295,654	21,510	7.25	3.438	1.163
Tinnivelly, 5 months	690,696	38,202	5.5		
	1,828,610	106,789	5.84		

In the fourth section, the authors of the Report proceed to examine into the causes of the epidemic, with suggestions respecting the circumstances that may have rendered it peculiarly fatal in particular situations, and to certain descriptions of people.

All the acknowledged causes of intermittent fevers exist in these provinces,—marshes, impervious wood and salt marshes, all of which had their influence; but the extraordinary increase of mortality still indicates the cooperation of an occasional cause of great power. This our authors think they have discovered in the great irregularity of the weather in the sickly years.

> 'We have now seen that three great remote causes have been assigned for remittent and intermittent fever; all of which, we conceive, have contributed to produce the calamity which has proved so fatal in this province. But marshy situations do not appear of themselves to be sufficient to render such affections epidemic; to produce this effect, there is required the superagency of a close, moist, and sultry heat, and imperfect ventilation. Hence it is, that, in common years, there is not produced, in many of the low situations we have particularized, a miasma of sufficient malignity to excite the general disease; because, in such cases, the exhalation of superfluous moisture takes place during the cold months of December and January, when they are comparatively innocent: but rains falling out of season, and in great abundance, at periods when the weather had become hot, and when there was so distressing and unnatural a deficiency of free ventilation in the atmosphere, occasioned evaporations of a very different nature; and which, we conceive, became a positive source of mischief, by bringing on that corrupt and stagnant state of the air which is ever closely connected with the decay or decomposition of vegetable matter.' pp. 106, 107.
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> 'Nearly a similar departure from the common course of seasons took place in the Tinnivelly province in the year 1757, as is mentioned by Mr Orme in his "History of Hindoostan;" and that it was followed by a like calamity. He tells us, that, in the month of March, the south-west monsoon was so violent, as to break completely over the Western Ghauts, and descend in vast floods into the Coromandel side of the Peninsula, where the rains fell, without intermission, for two days,—destroying crops just ready to be cut,—sweeping away many of the inhabitants,—and, ultimately, by creating a powerful evaporation during a sultry heat, producing an epidemic disease very fatal in its consequences.' p. 109.

The disease was invariably most fatal among the poor hardworking inhabitants, ill fed, badly clothed, and miserably lodged, while the troops, and even the prisoners in jail, comparatively escaped.

The fifth section treats of the nature of the epidemic, and its various types, and the notions of the native medical practitioners regarding it. Our readers will have already seen, that this epidemic was no new disease, but only an aggravation of the ordinary endemic fever of the country, called *jungle* or *hill-fever*, which is either remittent or intermittent, according to circumstances, the latter being infinitely more common and tractable than the former.

'The types under which the intermittent has appeared are the following.—1*st*, The simple tertian. 2*d*, The double tertian, which would seem to consist of the junction of two single tertians, that run each a separate and independent course, with similar paroxysms on alternate days. 3*d*, Quotidians. 4*th*, Quartans; and, 5*th*, Irregulars. To show which of these has most frequently occurred amongst the natives during the present sickness, we cannot do better than here subjoin a report of the sick in the Regimental Hospital of Dindigul, taken on the 1st of June 1811; the effective strength of the detachment being then 255 men.

Simple Tertians.	Double Ditto.	Irregulars.	Quotidians.	Quartans.	Convalescents.	Total.
30	26	24	13	4	20	117

Of these, 53 had been in the hospital for one month, 39 for two months, 23 for three months, and 2 upwards of three months.' pp. 126, 127.

The essential difference between this fever and the yellow fever of America, and the ardent fever of the South of Europe, cannot fail to strike our readers, and will not be easily explained by those who consider the latter fevers only as a higher *grade* of marsh remittent fever, depending upon high atmospheric temperature.

In the sixth section, the mode of treating the disease, and the best means of preventing relapses, are treated of. And here we have another strong proof of the essential difference of this epidemic from ardent fever. Instead of requiring, as the latter, copious blood-letting, which is not even mentioned as an auxiliary in the treatment of this epidemic, cinchona and arsenic have produced their usual specific effects. Cinchona, with a proper attention to the bowels, is what seems to have been most relied upon.

When the cinchona purges, a few drops of laudanum are to be added; when it has an opposite effect, a few grains of rhubarb, or a laxative injection, may be administered. The bark is to be continued for eight or ten days after the disease has diappeared, to the extent of three or more doses on the days when the fever used to return. The practice of giving repeated purges during the continuance of the disease is not approved of. The following observations on the effects of calomel show, that, even in India, its use must be subjected to limitation.'

'There are a description of medical men in this country, who suppose that, in hot climates, bark given for intermittent fevers has the effect of bringing on abdominal obstructions, if calomel is not at the same time daily administered; but to this opinion we cannot, from our own experience, subscribe. If full and proper evacuations are procured at the commencement of the disease, if over-secretions of bile are purged off, and if great care is at all times taken to keep the bowels open, we see no good reason why this acrid mineral should be given, however necessary it may be to alter the habit in more serious attacks;—it is an irritating and debilitating medicine;—it is very apt to sicken the stomach, and produce dyspepsia; and must therefore prove particularly objectionable at all times in delicate habits, and often in others too, when we should, as much as possible, preserve the tone of the stomach, and prevent it from rejecting the bark.—No: obstructions of the nature above-mentioned, we are rather inclined to think, arise from other causes; such as, a neglect of timely and free evacuation by stool, and perhaps more certainly still, from repeated, long, and severe cold stages having been allowed to take place, before the malady was checked; and hence the almost constant affection of the spleen or liver, which we see consequent of obstinate quartan agues, and which was particularly instanced in the native hospital of Dindigul. In support of what we have here advanced, we shall bring the authority of one of the most enlightened physicians of the present age, Dr Jackson, who, in speaking of bark, says, "I was early aware of these objections, and watched narrowly, "that I might discover its real effects; and I am now warranted in "saying, that it has every right to be considered as a *specific* in ague "and fever, while it is totally free from the imputation of occasion-"ing dropsy, dysentery, or visceral obstructions. These complaints "were always the most frequent when this remedy had been the most "sparingly employed." pp. 139—141.

Sulphuric æther and laudanum were occasionally tried with advantage. Arsenic, a remedy employed by the natives from time immemorial, in some instances succeeded, after many other things had failed, although its general use is not approved of.

'In recommending the use of the cold affusion during the hot fit, we can speak without hesitation, being firmly of opinion that it is a very powerful remedy; and what frequently, when judiciously used, arrests the progress of the intermittent;—nay, we have, in several instances, known daily immersion in the sea prove the happy means of checking agues which had baffled every other exertion that had been made to conquer them.' p. 143.

For the treatment of the various modifications of the disease, we must refer to the volume itself, and conclude our extracts by the following concise, yet satisfactory directions, for the cure of the fever in its more dangerous form of a remittent.

'When, from the appearance of the symptoms formerly described, it is evident that a fever of the remittent kind is expected, the stomach is often in so irritable a state, that it would be highly improper to give an emetic. In such cases, we order at once the following pills.

℞. Calomel gr. vi.
Pulv. Jacob. gr. vi.
Misce. Fiant pilulæ tres;—

the whole of which may be taken in the course of the twelve hours. These will produce copious evacuations; and may also, perhaps, bring on a degree of diaphoresis, which ought to be encouraged, by taking frequently a little tepid drink. On the second day, when the paroxysm will, in many cases, be found every way more severe than on the first, no time is to be lost in having recourse to mercury—the remedy which, at such times, can best be relied on for producing a proper intermission. Seven or eight grains of calomel, with three grains of camphor, are to be well rubbed together, and made into four pills, one of which is to be taken every three hours during the day. These will often have the desired effect, if continued for two or three days, by producing a desirable change in the habit, and so favourable a remission or intermission of fever, that the bark can be taken with safety.

'Notwithstanding this mode of treatment, however, we have found that, in some instances, the epidemic fever, in its remittent form, has proved a very severe and dangerous disease. Should no positive advantage appear to have been derived from the use of the pills just mentioned, although the gums show evidently that the habit has been affected by the mineral, we think it advisable no longer to delay the use of the cinchona, even before a regular intermission has been obtained, as the surest means of sustaining the strength of the sufferer. The decoction or infusion, with a small portion of the fine powder in it, and a little of the tincture, will then be the best form, giving from time to time what light nourishment can be taken:—or the pills of calomel and camphor may be given during the night, and the bark by day, in the way just mentioned; taking care, should nature appear to be sinking, to endeavour to raise the vital energy, by means of blisters to the legs, feet, or back. Indeed, in all extreme cases of this malady, blisters are often of great service, by rousing to recollection, and exciting the vis vitæ. The bowels are to be kept open by mild injections, to save the stomach; and grateful, but light cordials, are to be united with the bark.' pp. 152—156.

The last very short section contains observations respecting the measures to be adopted to prevent the recurrence of so great a mortality from a succession of irregular seasons.

III.

A Treatise on Uterine Hæmorrhage. By DUNCAN STEWART, Physician-Accoucheur to the Westminster General Dispensary, and Lecturer on Midwifery in London. 8vo. London, 1816. pp. 151.

IN no department of medicine can industry and talent be better employed for the relief of human distress, than in the improvement of midwifery. Notwithstanding the danger and anxieties to which the diseases of the female give rise, it is astonishing to think, that, in these circumstances of peril, their lives, as well as their children's, should be entrusted, in so many instances in this country, to the most unskilful empirics. The practice of midwifery, from being attended with unusual bodily fatigue, is one great cause of the reluctance which medical men have to practise it; and, perhaps, another reason has been, the supposed limited knowledge sufficient to qualify the practitioner. But let it be remembered, that under no circumstances can a minute acquaintance with the human frame and its diseases be more important, and promptitude and decision more necessary, than in the various situations of difficulty into which the accoucheur is constantly placed. Whilst these causes have been operating, it may be expected that this branch of medicine has not kept pace in its advancement with others where the path to improvement has been more smooth. Those, therefore, whose abilities and opportunities have enabled them successfully to prosecute the practice of midwifery, deserve well of the public, and they merit the approbation of their profession, for communicating to them their information. Impressed with these sentiments, the 'Treatise on Uterine Hæmorrhage,' now before us, claims particular attention.

'The object of the following treatise,' says our author, 'is to point out a mode of treatment which has been found very beneficial in alarming cases of Uterine Hæmorrhage.' In the introduction, our author, in a clear and ingenious argument, points out that the contractions of the uterus depend on a muscular structure, and that it resembles other involuntary muscles, differing only in the power which it exerts in the intervals between its different actions, and in the stimuli which excite these actions. 'But all the other involuntary muscles, as those of the heart, the stomach, the urinary bladder, and the intestines, also differ from each other in those qualities; exerting different degrees of power, contracting at different intervals, and being excited to action by different stimuli.' The uterus resembles the other involuntary muscles, not merely in the causes which excite its natural actions; it is likewise affected by those causes which produce morbid action in muscles. Troublesome cases frequently occur where the uterus has contracted spasmodically and irregularly; and the effects produced on the uterus at the time of parturition by the depressing passions, or any cause inducing general debility, are well known. Our author also observes, in proof of this opinion, that the means which allay immoderate action in other muscular parts, have a similar effect in moderating violent uterine action,—that the division of the muscular fibre forms a chasm by the retraction of the divided edges,—that it is capable not only of contraction, but of retaining itself in a contracted state, till that particular change in the economy of the parts takes place, which requires its relaxation,—and that, like other muscles, it is impaired in its action by diseases, and injuries of the brain and spinal marrow.

The work is divided into four sections. The *first section* contains observations on the practice generally employed in uterine hæmorrhage. After pointing out the evils which arise from puncturing the membranes in uterine hæmorrhage, before the *os uteri* is completely dilated, and from introducing the hand after the *liquor amnii* has escaped, and the child's head is forced against the *os uteri*, causing considerable irritation and producing spasmodic contraction of the uterus, some remarks are made on the practice usually recommended in uterine hæmorrhage from detention of the placenta.

The *second section* treats of the causes and treatment of those cases of uterine hæmorrhage which occur in the early months of pregnancy. Hæmorrhage previous to the sixth month of pregnancy, is very apt to take place at those periods when the woman should have menstruated had she not been pregnant. In such cases the discharge varies in quantity, is accompanied with constitutional derangement and irritability, and with pain in the back.

'When the hæmorrhage is not very profuse, by confining the patient to a horizontal posture, keeping her in a cool temperature, bleeding her if she is of a plethoric habit, allaying irritation by opiates, keeping the bowels regular, adhering strictly to the antiphlogistic regimen, and applying cold water frequently to the back, pubes, and vulva, the discharge will generally disappear. But if, notwithstanding the use of these means, the hæmorrhage should continue, considerable advantage may be derived from injecting some cold astringent fluid into the vagina; or from giving a cold clyster, consisting of one pound of lime-water and one or two drachms of laudanum. Sometimes all these remedies will prove unavailing, the discharge still continuing, and even increasing; a proof that a great part, or perhaps the whole, of the ovum is detached from the uterus, and that abortion will inevitably take place. In some cases, although the discharge appears, it recurs at irregular intervals, and in considerable quantity, till, at the fourth or fifth month, or perhaps at a later period of pregnancy, an ovum of two or three months is voided. In these cases, confinement to a horizontal posture, injecting some cold astringent fluid into the vagina, applying cold water to the back and pubes, and giving two or three times a day small doses of sulphuric acid, will generally be found to check the discharge, till the ovum escapes from the uterus. The strength may likewise be supported by moderate quantities of wine.

'When abortion is attended with very profuse hæmorrhage, the discharge can be easily commanded by stuffing the vagina.

'When this remedy is employed, it is necessary to fill the vagina completely; and to avoid, as much as possible, every thing that will cause pain and irritation. Soft rag or lint, soaked in oil, is to be cautiously introduced into the vagina; and a firm compress, wet with cold water, is to be fixed by a T bandage over the external orifice, so as to prevent the plug from being displaced. By this means, a coagulum is allowed to form at the mouths of the bleeding vessels, which prevents any further discharge of blood. It will likewise be necessary to confine the patient to a horizontal posture,—to apply cold to the thighs and pubes,—to admit cool air freely into her bed-chamber,—and to avoid the use of stimulants.

'As a complete state of contraction of the uterus is the only means which can permanently stop a profuse hæmorrhage from that organ, it will be also necessary, whilst remedies are employed to moderate the discharge of blood, to excite the uterus to contract, in order to expel its contents. For this purpose, stimulating clysters will be found very beneficial; but when they are given, the practitioner ought always to be in attendance, as, if the plug be displaced, a sudden and alarming increase of the hæmorrhage may occur. When the uterus begins to contract frequently and powerfully, the bandage and compress may be removed; but the plug should be allowed to remain till it is expelled, as it will keep up a degree of irritation on the os uteri, which will tend to increase and continue the expulsive efforts of the uterus; and by retarding, in some degree, the expulsion of the ovum, it will also favour the complete contraction of the uterus.

'Frequent fits of syncope are apt to accompany abortions, although there has been no previous great discharge of blood: but this symptom generally proceeds more from an affection of the nervous system, than from debility. If the discharge of blood, however, has been very profuse, the strength reduced, and symptoms of great debility supervene; whilst means are employed to suppress the discharge, stimulants in moderate quantity must be also given to support the strength.

Opium in large doses, either in a solid or liquid form, seems best calculated for this purpose; for, whilst it quiets the anxiety which the patient's apprehensions are apt to produce, it allays the state of general irritation, which always attends a sudden diminution of the powers of life, supports the strength without accelerating the action of the heart and arteries, and never prevents the due contraction of the uterus.' pp. 34—37.

In the *third section* are considered the causes and treatment of uterine hæmorrhage, when it occurs in the last months of pregnancy, and during labour, till the child is delivered. Dangerous uterine hæmorrhage generally proceeds in the last months of pregnancy from a partial or total separation of the placenta.

'When the placenta is situated over the os uteri, hæmorrhage always precedes the expulsion of the fœtus; and the action of gestation is seldom continued to the full period of pregnancy; for in the last months of pregnancy, as the cervix and os uteri become dilated, the vessels which connect the placenta to the uterus are ruptured, the process of gestation is impeded, the uterine fibre begins to contract, more vessels are ruptured, and, if assistance be not given, the woman either sinks from loss of blood, or in some rare cases the child is expelled, preceded by the placenta, and she recovers. In some cases the expansion of the cervix uteri, and the growth of the placenta, seem to go on together, and no hæmorrhage takes place till the os uteri begins to dilate at the full period of pregnancy. In other cases, although during the last months of pregnancy considerable hæmorrhage continues to take place, and the patient is much exhausted by loss of blood, the process of gestation goes on without interruption, till at the full period of pregnancy the os uteri begins to dilate, and the discharge increases in an alarming degree.' pp. 42, 43.

'When hæmorrhage takes place, and the placenta is found situated over the os uteri; if the patient has not arrived at the full period of pregnancy, if the discharge of blood does not produce any evident bad effects on the general system, if the os uteri is rigid, and not much dilated, and if there is not much pain from uterine contraction, an attempt must be made, by palliating the most urgent symptoms, to enable the patient to go on to the full period of pregnancy. She must be strictly confined to a state of rest in the horizontal posture; cold astringent lotions must be frequently injected into the vagina; and ice, contained in bladders, must be applied to the pubes and thighs. If she is of a plethoric habit, blood must be taken from the arm; pain and irritation of mind must be quieted by opiates; and all stimulants, and every thing which would produce irritation of the mind or body, must be carefully avoided. Although stuffing the vagina, in such cases, might at first check the hæmorrhage, it is not a remedy which could be employed with safety or advantage, as it would be apt, by irritating the os uteri, to excite the uterus to contraction, necessarily rupturing more vessels, increasing the discharge, and destroying the chance of enabling the patient to go on to the full period of pregnancy.

'If the hæmorrhage be considerable, producing symptoms of extreme debility, although the patient has not arrived at the full period of pregnancy, the child must be speedily delivered, as no other remedy can save the life of the mother. At the full period of pregnancy, when labour comes on, the discharge of blood being always very great, no time ought to be spent in the use of ineffectual remedies, as no plan of treatment can with safety be depended on, but the delivery of the child. Before commencing this operation, great benefit will generally be derived from giving the patient four grains of solid opium, or one hundred drops of laudanum. This remedy will be found to relieve the vomiting, and state of irritation of the general system usually attending this disease; and it will produce in the patient's system a degree of listless composure, which will render turning and delivering the child comparatively easy. As in cases of uterine hæmorrhage, the effects of opium on the system are generally very fugitive, the dose must be repeated as often as symptoms of irritation recur; and it must be increased according to the urgency of these symptoms. When the stomach is so irritable, as to reject the opium, when given in a liquid form, solid opium will generally be retained, especially if combined with an aromatic, such as the aromatic confection.

'In turning and delivering the child, the hand well oiled, and formed into a conical shape, must be cautiously introduced into the vagina, carrying it steadily forward, with a semirotatory motion, but resting during the remission of the labour pains; the os uteri should be slowly and completely dilated in the same manner; the placenta should be separated at one side, the membranes ruptured, and the child's feet grasped and brought into the vagina. In dilating the os uteri when rigid, slow and cautious procedure is particularly necessary; but, fortunately, its structure, when the placenta is situated over it, is more vascular and spongy than usual; and when it becomes necessary to dilate it quickly, bad effects are not so apt to be produced. In extracting the child when the breech comes to occupy the os uteri, no further assistance ought in general to be given, till the head begins to enter the pelvis: but as at this time there is considerable danger that the circulation in the umbilical cord may, by pressure, be suspended, the delivery should be accomplished as soon as possible. Danger need not be apprehended from following this rule of practice; for the child's body, by pressing against the open vessels, will restrain the hæmorrhage; and if only part of the placenta remains attached, its functions will be continued in a degree sufficient to preserve the child's life. The advantages to be gained in these cases by allowing the child to be partly expelled by the contractile efforts of the uterus, are important. It favours the regular contraction of that organ, and the complete dilatation of the os uteri. If the placenta is perforated instead of being separated at one side, these advantages will be lost, as the fœtal vessels will be torn, and the child will perish, if not speedily delivered.

'As soon as the child is expelled, the hand must be introduced into the uterus, and retained there, till that organ, by contracting, separates the placenta, and forces it into the vagina.' pp. 48—52.

Uterine hæmorrhage also arises before the delivery of the child, from an accidental separation of the placenta; and this generally arises from sudden and violent affections of the mind, exertions or concussions of the body, or any thing that increases the action of the heart and arteries.

'When a discharge of blood takes place from the uterus, in the last months of pregnancy, and the placenta is not found at the os uteri; there is reason to expect, if the patient has not been very much reduced, that the use of the means already mentioned will enable her to go on to the full period of pregnancy. But if these should fail, as a complete state of contraction is the only mean which can effectually stop a great discharge of blood from the uterus, and as this state cannot be produced whilst its contains any part of the ovum; the great practical object in these cases is to evacuate it as soon as possible. If the discharge be very profuse, or if a great quantity of blood has been lost, producing alarming constitutional symptoms, the first thing to be attended to, is to ascertain the state of the os uteri. If it be in some degree dilated, or soft and yielding, a large opiate ought to be instantly given; and, as soon as its sedative effects on the general system are perceptible, the hand should be introduced into the uterus, the membranes ruptured, and the child turned and delivered. When the os uteri is in a rigid state, slow and cautious attempts to dilate it will be found necessary: rude and violent endeavours to effect this purpose having almost always been attended with fatal consequences. Expedition, in those cases, is very seldom necessary; for, when an attempt is made to dilate the os uteri, it always excites the uterus to contract vigorously, and the hæmorrhage is consequently so much restrained, that, if the strength has not been previously very much reduced, the delay which arises from this cautious mode of procedure will not increase the danger. Large doses of opium are particularly useful in such cases, as they not only support the patient's strength, but likewise allay the irritation which is unavoidably excited by dilating the os uteri when in a rigid state.

'If profuse hæmorrhage occurs when the membranes have been for some time ruptured, and if the os uteri be at the same time rigid and contracted, it presents one of the most perplexing combinations of untoward circumstances. In those cases, much benefit may be derived from stuffing the vagina, if the patient be not very much reduced before assistance is called; and whilst the os uteri continues rigid and contracted, internal hæmorrhage need not be dreaded. If, however, the patient be very much reduced by the hæmorrhage, it will be necessary to proceed immediately to deliver the child by turning. Resolute, cautious, persevering attempts, are in these cases indispensably necessary; for, after dilating the os uteri, the uterus is often found to embrace the child's body so closely and firmly, that in passing the hand to get hold of the child's feet, there is considerable danger of rupturing that organ; and even after the child's feet have been brought into the vagina, a continuance of very considerable extractive force is often required, before its head can be made to recede. In many cases of this kind it will be found impossible to accomplish the delivery, without either injuring the uterus or the child, till the patient has fainted with fatigue and loss of blood. But if the os uteri be rigid and contracted, and if the patient be not very much reduced by the loss of blood, means must be employed to restrain the hæmorrhage, till the os uteri becomes more easily dilatable. She must be confined to a state of rest in the horizontal posture; the vagina must be carefully stuffed, as before directed; cold air must be freely admitted into her apartment; cold must be applied to her thighs and pubes: and this plan of treatment should be continued, till there is reason to believe, either that the os uteri has become dilated, or till the patient begins to complain of a sense of distension of the abdomen, accompanied by those constitutional symptoms which are generally produced by a great loss of blood, and which indicate that internal hæmorrhage is taking place.

'The delivery of the child, after it is turned, is not to be hurried in those cases, except the discharge of blood is very profuse, and the symptoms of general debility are very urgent; for, by allowing it to remain partly in the uterus, it favours the complete and regular contraction of that viscus. But it is necessary to bear in mind, that when the head enters the pelvis, it will be necessary to assist the delivery, otherwise the life of the child will be lost, by compression of the umbilical cord. Large and repeated doses of opium will be found particularly beneficial in allaying the irritation which is always produced in those cases, by dilating the rigid os uteri, and by the pressure which the hand necessatily makes upon the internal surface of the uterus.' pp. 67—74.

In the *fourth section* our author treats of the causes and treatment of uterine hæmorrhage, when it occurs after the child is delivered. Hæmorrhage seldom takes place until a few minutes after the child is delivered, except when it begins in the former stages of labour. When it occurs after the delivery of the child, it is caused either by a want of contraction in the uterine fibre, by its irregular contraction, or by a change in the structure of the placenta, causing a morbid adhesion of that organ to the uterus.

'In hæmorrhage proceeding from torpor of the uterus, when the discharge of blood is very great, in addition to the application of the bandage, one hundred drops of laudanum should be given, and the hand, well oiled, should be gently introduced into the uterus. It should be kept in mind, that the object to be accomplished by introducing the hand, is not to bring away the placenta, but to excite the uterus to contract, that it may separate the placenta, force it into the vagina, and thus permanently check the hæmorrhage.

'Although in general the stimulus communicated to the uterus by the hand, when passing through the os uteri, will be found to excite it to contract; yet, when it is in a very torpid state, it may be necessary, after introducing the hand into it, to make pressure with the fingers on its internal surface, and even sometimes to move the hand for some time in its cavity, before it can be brought into a state of contraction.

'In every case where it becomes necessary to introduce the hand into the uterus, after the delivery of the child, it must not be withdrawn till that organ has completely contracted; and if a fit of syncope takes place during the operation, the hand must still be retained in the uterus, that advantage may be taken of the first signs of returning life to excite it to contract.

'No occurrence is so much to be dreaded after the delivery of the child, and before the uterus has contracted, as a fit of syncope, as it always prevents the contraction of that organ; and although at the same time the flow of blood may be in some degree retarded, yet the ruptured vessels being large, blood in considerable quantity will continue to be poured out by them. In this way the syncope may prove fatal, or the patient's system may be so far sunk, that she recovers only to draw a few convulsive inspirations, and then expires. Those authors have been rather unjustly blamed, who in such cases have advised the free use of stimulants. The fault, in general, does not seem to consist in the assiduous use of restorative means, but in not taking immediate steps, when life is returning, to stimulate the uterus to contract. When the patient faints, whilst the hand is retained in the uterus, every mean should be employed to restore her; cold air should be freely admitted into her bed-chamber; fomentations should be applied to the epigastric region, and to the extremities; cold water should be sprinkled on her face, stimulants should be applied to her nostrils; her head should be laid very low; and, if any liquid can be got into the stomach, hot brandy and water ought to be given in considerable quantities. As soon as signs of returning life are perceived by gently moving the hand in the uterus it will begin to contract, and by supporting it with a bandage drawn tight round the abdomen, it will retain its contracted state so as permanently to check the discharge. If the patient's general system has suffered, large doses of opium should be given; and when a state of great irritation of the general system takes place, the opium should be repeated according to the urgency of the symptoms. Small quantities of strong soups, or wine, should likewise be given, at short intervals, to support the strength.

'The application of cold, in the form of ice, snow, or vinegar and water, to the thighs and pubes, has been recommended as a very efficacious mean in the cure of uterine hæmorrhage, arising from a state of torpor of the uterus. This remedy may succeed when the uterus is nearly contracted, in checking the discharge, by retarding the flow of blood to the uterine vessels. The sudden application of cold may likewise, by giving the general system a shock, have some effect in stimulating the uterus to contraction. But when the hæmorrhage is very great, and the uterus in a torpid state, this remedy cannot with safety be trusted to, as superseding the necessity of introducing the hand.

And that surgeon would not be more blameable who would trust to styptics, in suppressing a hæmorrhage from a wounded femoral artery, than the accoucheur who would trust to the application of cold alone, for suppressing profuse hæmorrhage, arising from torpor of the uterus. The application of spirits to the abdomen has been found useful in those cases, producing, by its sudden evaporation, a great degree of cold; and by stimulating the skin, it has been supposed that, by sympathy, it stimulated the uterus.

'When the placenta is forced, by uterine contraction, into the vagina, it ought to be immediately removed, and the patient should be carefully watched; for if the uterus has not completely contracted, the blood which will be poured out may form a coagulum in the vagina, and the uterus may yield till it becomes completely distended with blood: This sometimes occurs even when the bandage has been previously applied.'

These important practical doctrines are illustrated by well chosen and concisely stated cases. The beneficial effects of opium,—the extent to which it may be given,—and its exhibition in diseases where its use is little known, renders the work extremely interesting. It is written in a distinct and unaffected style, and is evidently the result of a thinking and observing mind.

IV.

Synopsis Nosologiæ, or Outline of a new System of Nosology, Syllabus of a Course of Lectures on Nosology, Parts II. and III. delivered at Leicester in December 1815. By T. Parkinson, M. D. 8vo. London, 1816.

In this little work Dr Parkinson has attempted a task, which he admits to be arduous and difficult, but which, we are firmly persuaded, is impossible,—to reduce nosology to a progressive, methodical, and logical system, fixed upon solid and just principles, governed by acknowledged and inflexible laws, and divested of fanciful and delusive hypothesis. In proof of this we need not analyze the principles and detail of this singular system, but shall content ourselves with a single quotation, premising such an explanation of the new terms which occur in it, as will render the whole intelligible. He divides all primary diseases into two classes, Hyperbiosis and Catobiosis; in the first, the natural functions are exercised above, and in the second, they are depressed below the limits of health. Each of these, again, is subdivided into three orders, derived from anatomical construction and composition, as having diffusively arranged fibres, spherically arranged fibres, or both together. The genus he states to be dependent upon, and limited to identity of diseases,—the species to situation,—the varieties to introduction of poisons,—and the types to intensity. In conformity with these views, he has invented an appropriate language; and from their combined influence he anticipates a radical reform of medical science; but we shall let our author speak for himself; and lest we should be suspected of selecting partially, we transcribe the whole of one of the divisions of his syllabus.

RECOMMEND the ADOPTION of this NOSOLOGICAL LANGUAGE in THINKING, SPEAKING, and WRITING on DISEASES.

The path in pursuit of Medical Science will be illumined.
The judgment will be corrected.
Confidence will be strengthened.
Arguments will be logical and incontrovertible.
Conversation will be dignified and admired.
The profession will be exalted and reverenced.

HOPE TO OBLITERATE the TERM FEVER from NOSOLOGICAL LANGUAGE.

Fever is never an idiopathic disease.

Is always symptomatic of local HYPERBIOSIS; therefore, it cannot be allowed any separate or distinct appellation.

Typhus Fever is a symptom only; or rather, is composed of an assemblage of symptoms inseparable from a given type of HYPERBIOSIS; the identity of the disease is inflammation of some solid of the first *ORDER, PLATYMORPHIA;* and the increased SENSIBILITY, the increased MOBILITY, the increased CIRCULATION, and the increased CALORIC, the component parts of inflammation, are the evidences of its existence.

Intermittent and remittent Fevers are of the same CLASS as Typhus Fever, and of the same identical GENUS, differing only in degree of intensity of local inflammation, that is, in Type.

A given intensity of HYPERBIOSIS *DIFFUSA ENCEPHALICA* will intermit, and the fever will correspond in intermission.

With greater intensity it will remit, and the fever will correspond in remission.

With greater intensity it will be progressive, and the fever will correspond in progression; and this is Typhus Fever.

By elevating HYPERBIOSIS intermittens it becomes HYPERBIOSIS remittens; the symptomatic fever will, therefore, be remittent; and by elevating it to progressiva, the symptomatic fever will be continued.

I have to add, that, if what is usually called TYPHUS FEVER, terminates in death; on examination of the dead body, the seat of local HYPERBIOSIS may always be discovered, and will be found either in a highly inflamed state, or perhaps, more commonly in a state of gangrene.

V.

A Treatise on the Nature and Cure of Gout, comprehending a General View of a Morbid State of the Digestive Organs, and of Regimen; with some Observations on Rheumatism. By CHARLES SCUDAMORE, M. D. Member of the Royal College of Physicians, of the Medical and Chirurgical Society of London, &c. &c. 8vo. London, 1816. pp. 389.

We must candidly confess that this book has surpassed our expectations. We have always looked upon gout as a most unpromising subject, and did not expect that any book could be written upon Gout containing so much new or useful information as that before us, or so totally free from every thing like quackery; no small recommendation of a treatise upon a disease, which has always been the hotbed of empiricism.

Dr Scudamore begins his inquiry by examining the definition and nosology of gout by Dr Cullen, and points out, in both, various inaccuracies. He objects to its being defined to be a hereditary disease, not from bewildering himself and his readers with metaphysical quibbles about the meaning of the term hereditary, but because gout is more frequently acquired where no hereditary influence can be traced, than where such influence does exist.

Of 77 patients, the number of those in whom the disease was

Hereditary from the father - - -	21
——————— mother - - -	5
——————— father and mother - -	3
Of those whose grandfather only had gout - -	3
————— grandmother only had gout - -	1
————— aunt only in the family - -	1
Not known either on the father's or mother's side -	43

From which it appears that the cases of acquired gout were to the rest as 43 to 34, and to those immediately hereditary, as 43 to 29.

Cullen's next character is also not very correct, for a *first* fit of gout is often excited by *evident external causes,* as vicissitude of temperature, a sprain, contusion, or any kind of local injury; although, in a person not disposed to gout, the same causes would produce only common inflammation, or some other diseased action, according to the specific disposition of the individual.

The next clause of Dr Cullen's definition 'pain at a joint, and, for the most part, affecting most violently the great toe: certainly the joints of the feet and hands,' Dr Scudamore thinks implies too strongly that a joint is the only seat of true gout, as, especially after repeated attacks, the disease attacks not only the articular structure, but also the tendons and bursæ mucosæ. However, from Dr Scudamore's own statement, it appears that, of 71 examples, the great toe was the seat of the first attack in 55 cases; some part of the foot alone in 64 cases; the knee in two, the hand and foot in two, and the hand alone in three.

In the same manner Dr Scudamore proceeds to comment upon Dr Cullen's division of gout into regular, atonic, retrocedent, and misplaced; and, in place of a definition, he gives a concise description of the disease, and proposes to divide it into Acute, Chronic, and Retrocedent gout.

Dr Scudamore treats of acute gout at great length, detailing in succession the premonitory symptoms; the paroxysm in a first and in subsequent attacks; the sequelæ; the remote causes, predisposing and exciting; the proximate cause; the ratio symptomatum, diagnosis, and prognosis. For the particulars concerning these, we must refer to the work itself, and shall content ourselves with extracting a few detached observations.

It has been often generally stated, that gout seldom comes on before the age of puberty; but the following table by our author almost settles this point, or at least adds much to the accuracy of our knowledge of the subject. In 64 cases the first attack took place between the ages of

20 and 25 in 6
25 — 30 — 17
30 — 35 — 14
35 — 40 — 13
40 — 45 — 2
45 — 50 — 6
50 — 55 — 2
55 — 60 — 3
60 — 65 — 1

By which it appears, that its invasion is restricted to the period between 20 and 65, and that more than two-thirds of the whole number were attacked between 25 and 40, or in the prime of manhood. Dr Scudamore has also given a tabular view of the form of 118 sufferers from gout.

	Males.	Females.	Total.
Tall and corpulent - - -	41	7	48
Short and corpulent - - -	12	3	15
Middle height and corpulent - -	19	2	21
Middle stature and bulk - -	10	1	11
Tall and middle bulk - - -	6	0	6
Short and middle bulk - - -	9	0	9
Short and slight - - -	6	2	8

In speaking of strong liquors as a predisposing cause of gout, our author clearly shows, that it occurs less frequently in those countries where spiritous liquors are abused, than where wine or ale are habitually drunk. Thus diabetes is more common in Scotland, gout in England. He accounts for this by supposing, that the abuse of spirits destroys the appetite and impairs the digestive process. Gout, indeed, he considers as being truly a disease of repletion, which, however, in its consequences, leads to relative derangement and debility, as indicated by all the symptoms of dyspepsia. The state of the urine has always been considered as an object of importance in gout, and has even been connected with theories of the disease. It has been very attentively cousidered by Dr Scudamore, and the results of his numerous experiments furnish some new facts. In particular, they tend to show, that, contrary to the commonly received opinion, gouty urine does not contain an excessive proportion of uric acid, and that Berthollet is also wrong in asserting that the urine of gouty persons, when in health, contains less of the phosphates, than the urine of persons in health not subject to gout, and that in the former the phosphates are increased during the paroxysm to the usual quantity. The circumstances giving rise to these errors are satisfactorily explained.

'With reference to the morbid state of the functions of the alimentary canal just considered, the urine also is an abundant source of information, when attentively examined. The quantity secreted is usually scanty, or, even when in natural proportion, is much concentrated. That portion which is passed the first in the morning, should be the particular example for medical observation and examination. A copious deposition of pink or brick-coloured sediment, together with an exeessive quantity of mucus, is a frequent appearance; or uric crystals (commonly called gravel) with mucus; or the phosphates mixed with the urates, or separate; or mucus chiefly, with scarcely any other matter in the sediment, also occur. The colour of the morbid urine is various, and modified by different causes;

but, whether more or less deep, it is found, under these circumstances, much increased in specific gravity beyond the natural standard of health. This, from my experiments, which have been very numerous, I should state from 1010 to 1015. In the morbid urine to which I have referred, I have found the density sometimes increased to 1035 and 1040, and very commonly to 1025 and 1030. Its natural acid character almost universally remains in the recent state; but such highly animalized urine soon becomes alkaline and putrid.' pp. 67, 68.

But the deposition of a pink or lateritious sediment, or of crystals, is neither necessarily nor regularly attendant on a paroxysm of gout, and occurs in other circumstances of disease in connexion with unhealthy chylopoietic functions. In proportion, therefore, as gout is associated with such disordered functions, and not further, are these sediments connected with that disease.

' Returning now to the question of an excess of uric acid secreted by the kidneys, as indicated by the deposition of the crystals—or the pink or lateritious sediment, and its relation already mentioned to the proximate cause of gout—I have to observe, of the crystals more particularly, that they are not to be considered as a proof of an excess of uric acid; but rather as a separation of this principle from the urine, and a new combination with some other of its elements. If nitric, or muriatic acid, be added to urine of moderate specific gravity which has deposited these crystals, scarcely any further uric precipitate is produced; and having in different experiments carefully estimated the quantity so obtained, with that procured from healthy urine of the same specific gravity by the same methods, I have found the position in question to be fully manifested; equal portions of such healthy urine, furnishing an equal quantity of uric precipitate, with the whole of that spontaneously and artificially precipitated from the morbid urine, with which it was compared.' pp. 88, 89.

Dr Scudamore also proves by experiment, that uric acid is only deposited in an abundant quantity from urine of a high specific gravity, which likewise contains the other principles composing this secretion, as the phosphoric, sulphuric, and muriatic acids, and urea in preternatural quantity.

Our author, in bringing Berthollet's opinion to the test of experiment, examined the urine under different circumstances in 37 instances.

' In these experiments, nitrate of lead was the precipitate employed; and the urine was diluted with distilled water. A portion of the urine, first and separately passed in the morning, was, in each case, chosen for examination. The precipitate was carefully dried and scraped from the filter. Of this, a certain quantity was boiled in water, that the muriate of lead might be removed; and with it also the uric acid was separated. It was then burnt in a crucible for about half an hour, that the several animal matters should be destroyed as much as possible. It was next boiled in diluted nitric acid; and, being allowed to rest, the clear liquor was decanted from the sulphate of lead and some insoluble animal matter. To this, ammonia was added in excess; the precipitate was collected on the filter, dried, and weighed. This was the phosphate of lead, from which the relative proportion of phosphoric acid was estimated, by means of Dr Wollaston's logometric scale. Equal quantities (four ounces) being always employed, and all circumstances of experiment being alike, it may, I hope, be presumed, that this investigation, by comparative experiments, is entitled to confidence.' pp. 106, 107.

The result is expressed in the following table.

Exp.	Sp. gravity.	Nit. of lead. Grains.	Ph. of lead. Grains.	Ph. acid. Grains.
1. J. W. gout	1.016	22	13.7	2.88
2. Ditto in health, and two months after recovery	1.0199	18.4	4.6	.96
3. A. L. gout	1.028	66.2	43.7	9.2
4. Ditto in health, and two months after recovery	1.0168	26.3	14.1	2.97
5. J. C. gout	1.014	28.8	4.8	1.02
6. Ditto in health, and three months after recovery	1.0137	16.2	4.3	.91
7. C. M. gout	1.020	50.5	20.2	4.3
8. Ditto in health, ten weeks after recovery	1.0107	23.4	7	1.47
9. E. P. gout	1.029	71.5	30.4	6.41
10. Ditto in health, ten weeks after recovery	1.0191	40	19.2	4.05
11. W. W. gout, one day before the attack	1.0096	13.8	3.8	.8
12. Second morning after	1.0201	55.2	25.4	5.36
13. Seventh day of gout	1.0099	30	15	3.17
14. Eighth	1.0242	46	18.4	3.88
15. Ninth day of gout	1.012	24	4.8	1.02
16. Tenth	1.0105	28	7	1.47
17. Eleventh	1.0106	32.8	16.4	3.47
Twelfth	1.0085			
18. In health, about two months after recovery	1.0172	26.8	13.3	2.8
19. J. G. hepatitis, with gouty diathesis	1.0207	57.6	19.5	4.1
20. Ditto in health, many months after recovery	1.014	20.4	10	2.1
21. J. W. gout No opportunity of comparison.	omitted	42.5	16.1	3.4
22. J. M. gout No opportunity of comparison.	omitted	35.6	10.6	2.24

Exr.	Sp. gravity.	Nit. of lead. Grains.	Ph. of lead. Grains.	Ph. acid. Grains.
23. T. A. in health, not subject to gout or rheumatism -	1.0113	25	13	2.5
24. L. S. in health, not subject to gout or rheuma tism - -	1.0183	40.8	20.5	4.33
25. A. J. in health, subject to acute rheumatism	1.0173	17.4	5.6	1.18
26. E. J. in health, not subject to gout or rheumatism, but plethoric, and liable to tonsillary inflammation - -	1.0217	49.2	20.4	4.31
27. H. T. chronic hepatitis	1.0334	49.2	22.8	4.82
28. Ditto when in improved health - -	1.018	37.2	13	2.75
29. J. T. continued fever	1.025	32	18.5	3.9
30. Ditto many months after in full health -		48	24	5.07
31. S. P. acute hepatitis	1.023	38.4	24	5.07
32. Ditto, feeling in general health two months after; but certainly not free from hepatic affection -	1.0245	40	28	5.92
33. J. B. nephritis -	1.018	36.6	17.7	3.75
34. L. S. acute rheumatism	omitted	29.2	5.1	1.07
35. L. M. tabes mesenterica	1.0263	51.2	23.5	4.96
36. H. C. continued fever	1.023	44.8	omitted	omitted
37. Ditto in health, two months after recovery -	1.0154	26.6	ditto	ditto

The next set of experiments which we find introduced into this volume, prove that the actual temperature of a part, when affected with gouty inflammation, attended with severe pain, is by no means so high as the feelings of the patient would indicate.

We have endeavoured to give an abstract of the results of these experiments, by contrasting the temperature of the affected part, with that of the corresponding part in the other side of the body.

Affected side, acute gout, 84; 94; 93.5; 87.5; 75.5; 87.5;
Healthy side, 83; 70.5; 81.7; 75.5; 69.5; 75.5;
Affected side, chronic gout, 96.5; 86; 95; 96;
Healthy side, 84; 74; 93; 93.

From these facts it is evident, that although a part affected with gouty inflammation, and giving a sense of intolerable heat to the patient, has its temperature actually increased in some instances by many degrees, in no case did the actual temperature amount to the heat of the internal or central parts of the body, as indicated by the thermometer placed under the tongue or in the axilla. The same observation was made in regard to rheumatic inflammation, whitlow, and ulcer from a burn. It even appears, that the increased temperature of an inflamed toe or finger, giving rise to the sensation of *burning* pain, is seldom so great as that of a sound part of the same limb a few inches nearer the trunk.

The treatment of gout is considered at very great length. He begins by observing, that 'the prohibitions of Sydenham against the least interference in the paroxysm, long exerted a powerful influence on medical practice—an influence which still continues to this day to have a considerable force.' But this opinion, he shows, was derived from the humoral pathology; and although he admits, as a general position, that nature is seeking a remedy for herself in a fit of the gout, and also that, if her purpose were always accomplished with as much success as in a first fit, the physician might, with propriety, stand by as a looker on, merely admiring the *vis medicatrix naturæ;* but as, in truth, the disease not only returns frequently, but returns with constant increase of strength, and the remedial efforts of nature, which were at first so satisfactory, become tedious, irregular, and uncertain, our author thinks

—'that we are paying her sufficient respect, in attentively seeking to discover the kind of evil which she has to remedy; taking all her indications for our guide, and acting truly as her servants; but not with *fettered hands.*

'I would assume it therefore as a principle, that we should attempt the prevention of a fit of gout, if warned of its approach, and interrupt its progress when formed, *unless* such a state of the constitution exist, that the gout has taken the place of another more serious disease, or may be expected to prevent one which is threatening, and more to be dreaded than itself.' p. 146.

He then proceeds to treat, first, of the premonitory symptoms, and then of the paroxysm; and, under the last head, he passes under review all the remedies that have, at any time, been recommended, as well as the various local applications. For his judicious observations on these, we must refer to the work itself; and shall only observe, that he is hostile to the use of the *Eau medicinale*, and all the pretended specifics, upon grounds which are perfectly satisfactory. Although he opposes the practice of Dr Kinglake, as derived from erroneously considering the disease as being entirely local in its nature, yet he recommends a less active application of cold as a palliative remedy against the burning sensation of the affected part.

'It had long since appeared to me, that a more gradual exhaustion of the inflammation, and a more soothing mode of effecting this than can be obtained by active cold, might be free from all the objections and disadvantages of the treatment in question. It seemed also not unreasonable to expect, that a moistened evaporating surface would procure very different sensations to the patient, from those which accompany the dry and burning heat of skin which gouty inflammation so certainly produces.

'I have now the satisfaction to state, that, in about forty cases, I have made trial of the following lotion, with the best success.

℞ Alcoholis ℥ viii.
Misturæ camphoræ ℥xvi. M.—Fiat lotio, modice tepefacta ab additione pauli aquæ calidæ, et partibus affectis constanter adhibeatur.

The evaporation which the alcohol alone would occasion, is advantageously restrained by this dilution; and the addition of a sufficient quantity of very hot water, is for the purpose of producing a temperature, just agreeably lukewarm, and furnishes a prompt and convenient method of employing the lotion, on the principles on which I recommend its adoption. If it be applied either hot or cold, the intention of the remedy is frustrated; and I have observed, that, from being made too warm, its operation has been injurious, rather than beneficial.' pp. 184, 185.

Dr Scudamore has printed eight cases, at considerable length, illustrative of the principles of his practice, which, our readers will anticipate, do not lay claim to any novelty, but only to rational selection.

The following note on the action of reagents on urine, which occurs in the first case, deserves notice, as generally applicable where the chemical analysis of the urine is of use, and especially to be kept in view, when examining dropsical urine, in reference to the opinions of Dr Blackall.

'I have invariably found, that the first urine of the morning, such even as is secreted in good health, *immediately* becomes turbid with infusion of galls, and with the solutions of oxy-muriate of mercury, and of alum. The precipitate which subsides is more or less abundant, and dense and coloured, according to the proportion of saline and animal matter present, and the consequent high specific gravity of the urine. The galls occasion the darkest coloured precipitate. That from the oxy-muriate of mercury is usually the most dense, and is often coloured of a reddish hue. It has the appearance of pus mixed with water, and a little coloured. The precipitate produced by the solution of alum is more white and flocculent, and possesses also uric acid, deposited in crystals.

'Mr Cruickshank has erroneously described the effect of the oxymuriate of mercury, as being an indication of disease, in the following words (Rollo on Diabetes, 2nd edition, p. 443)—'The cor-

'rosive muriate of mercury is a very useful reagent, as it has no immediate effect upon recent healthy urine; but in every case of increased action of vessels, more particularly of the inflammatory 'kind, a greater or less milkiness, and a whitish precipitate, is entirely produced.' This erroneous statement is copied by Berzelius, (View of Animal Chem. p. 98.) That the effect is *greater* in urine of high specific gravity, and therefore in certain states of disease, I have already granted; but the very material mis-statement to which I have referred, deserves, I think, to be pointed out. Dr Blackall (on Dropsies, p. 15.) speaks in doubtful terms of the effect of the infusion of galls, as to the nature and extent of its indication in disease, or 'in some circumstances of *apparent* health.' Here, the powers of this reagent also are not correctly conceived.' pp. 206, 207.

In the sixth case there are also some good remarks on the same subject, suggested by the ready coagulation of the patient's urine even at 120° or 130°. It is also worthy of notice, that it contained very little urea, or uric acid, while, on the other hand, an extensive secretion of uric acid was continually going on in the hands and the feet.

This part of the work is concluded with a detail of the prophylactic regimen to be followed, which is characterized by the same good sense conspicuous on other subjects.

'Upon a review of the whole of the present subject, we arrive at the conclusion, that the prevention of gout consists rather in doing little, than much, by the employment of medicine: and that, in the same way as in regard to all other diseases, the cardinal rules of preserving the health are founded on temperance and exercise; on the choice of all those means which are found by the individual to invigorate the system; and the shunning of whatever injures and enfeebles it.' p. 271.

Dr Scudamore subjoins, as intimately connected with this part of his subject, an abstract of some unpublished experiments made by Mr Astley Cooper, to ascertain the comparative solvent power of the gastric juice on different articles of food. The experiments were made in as uniform a manner as possible upon dogs, which were killed when a given time had elapsed after the substances had been forced down the throat, and the loss which 100 parts of each had sustained by digestion, ascertained by weighing. Raw food, and the lean parts of the meat only were given, except when the contrary is expressed; and the form in the 1st, 2d, 3d, 4th, 6th, 7th, 9th, and 10th experiments, was long and narrow; in the 5th, it was square, and in the others it is not stated.

Exp. 1. One hour. Pork lost 10; mutton 9; veal 4; beef 0.
2. Two hours. Mutton 46; beef 34; veal 31; pork 20.
3. Three hours. Pork 98; mutton 87; beef 37; veal 46.

Exp. 4. Four hours. Pork 100; mutton 94; beef 75; veal 69.
5. Four hours. Cheese 76; mutton 65; pork 36; veal 15; beef 11.
6. Two hours. Cod-fish 74; beef 0; rabbit 0.
7. Time not specified. Fat 70; cheese 29.
8. do. Beef 100; potato 43.
9. do. Boiled veal 30; roast veal 7.
10. do. Boiled veal 31; roast veal 2.
11. Four hours. Fat 100; muscle 36; skin 22; cartilage 21; tendon 6; bone 5.
12. Three hours. Thigh-bone 8. Six hours. Scapula 100. Six hours and an half. Thigh-bone 30.

Each of these experiments was, of course, made upon a different animal, and the irregularity of the results shows, that, notwithstanding the able manner in which they were conducted, a frequent repetition of them would be necessary to enable us to draw conclusions with any degree of confidence. Besides, it may admit of a question whether quick solution in the stomach be a proof of *easy* digestion. As far as we can judge from these experiments, the following is the order of solubility in the stomach of the dog; cod-fish, fat, cheese, pork, mutton, beef, veal, skin, cartilage, potatoe, tendon, bone.

Chronic and retrocedent gout are also treated of with great judgment; and this part of the work is concluded with a table of the analytical mode of investigating a case of gout, and the general history of the disease, which was adopted by the author.

As connected with the subject of gout, Dr Scudamore has lastly subjoined some observations on rheumatism, chronic and acute; and, from the whole performance, he has established his character, not only as a judicious observer of disease, but as a scientific inquirer, and good writer.

VI.

Practical Illustrations of Typhus and other Febrile Diseases. By JOHN ARMSTRONG, M.D. 8vo. London, 1816. pp. 305.

THE theories of fever which so much engaged our attention some twenty years ago, are now quietly entombed with their celebrated inventors, Cullen and Brown; and as, very happily, no tub so alluring and seductive has since been cast out to the whale, he has gradually recovered from his delirium, and become at length infinitely more quiet and sober than when we first had the honour of his acquaintance.

It was the error of those splendid theories to regard debility, which does constitute a very remarkable part of fever, not simply as one of a concourse of symptoms, but as the cause of the whole series of phenomena which characterizes the disease. Evacuations of every kind were therefore much dreaded, and cautiously and sparingly used in the treatment of idiopathic fevers; while wine, bark, and opium, were administered with indiscriminating liberality. A very different practice is now the order of the day. This reform has not indeed been sudden, but gradual and progressive. It is now, however, so complete, that there is, we apprehend, some danger of the practice verging to the opposite extreme. But a few years ago, and it seemed to be the ambition of every recorder of his practice to tell us how many bottles of wine he had been able to persuade his fever patients to swallow, and to boast of the wonderful cures he had thus effected: And now every journal teems with the successful result of the evacuant plan of treatment, and records the surprising effects of arteriotomy and venesection, followed by monstrous doses of calomel and jalap. It has been our fortune to have seen fevers treated according to both these fashions, and we have known many patients to die, and many to recover under both modes of treatment; but our experience is nevertheless favourable to the antiphlogistic method. Evacuations, even of blood, we are friendly to in the beginning of fevers, or when signs of organic inflammation are present; but we are nevertheless equally satisfied, that the lancet cannot be employed with the same freedom in the idiopathic fevers of this climate, as it may, and indeed must be, in the successful treatment of the pure phlegmasiæ; and that debility is a symptom far more instant in the former than in the latter order of pyrexiæ.

We agree, however, with Dr Armstrong, the author of the very interesting volume now before us, that the most formidable symptoms in fever are those of increased vascular action, and of visceral inflammations and congestions; and that the best remedial agents are such as are adapted to restrain, to obviate, and to remove these. These agents are, general and local blood-letting, cold and tepid affusions or baths; blisters, purgatives, and salivation by calomel;—and these are the remedies chiefly employed by Dr Armstrong, and the utility of which it is the object of these practical illustrations to establish. But these powerful agents are not indiscriminately or incautiously applied by our enlightened author. His work, on the contrary, abounds in judicious reflections, refined distinctions, and practical illustrations of the highest importance.

The different forms of typhus fever are arranged under three varieties,—the simple, the inflammatory, and the congestive typhus.

The simple typhus, as described by our author, differs in nothing from the Typhus mitior of nosologists; and as the disease runs its course through its different stages of oppression, excitement and collapse, without the occurrence of symptoms indicative of visceral inflammation or congestion, the more powerful remedies are not necessary. Emetics, in the beginning;—an antiphlogistic regimen,—the cold or tepid affusion, and purgatives during the stage of excitement,—with the cautious exhibition of wine during the stage of collapse, are the only remedies in general necessary.

The inflammatory typhus is distinguished by the greater excitement, and by the symptoms of acute, or subacute inflammation of some of the viscera of the brain, of the lungs, or of the liver or intestines. Dr Armstrong's observations on this variety of typhus are highly important. Debility is here indeed a very secondary consideration. Life is endangered by the general excitement, and by the visceral inflammations; and if these be not obviated and removed, the symptoms of malignancy, putrescency, and debility, necessarily follow. It is here that a prompt and decisive practice is most eminently useful. When symptoms of acute inflammation of any of the viscera are present, it will generally be necessary to have recourse to general blood-letting; and as it is only in the earliest days of the disease that this can be done with safety and advantage, Dr Armstrong is urgent in recommending the *obsta principiis.* On the same account, too, when he has recourse to venesection in typhus, he prefers taking away a sufficient quantity at once, so as even to produce some degree of faintness, to a repetition of smaller and less effectual bleedings. Local bleedings, by cupping or leeching, and blisters, may afterwards be advantageously had recourse to. With these, his principal confidence is placed in repeated purging, especially by means of calomel, which he uses in large doses, with a view to secure also its alterative effects. This, indeed, seems to be Dr Armstrong's favourite remedy, his anchor of hope in inflammatory typhus, and in all visceral inflammations.

'For many years,' he observes, 'it was my practice to confide entirely in the co-operation of bleeding, purging, blistering, and an antiphlogistic regimen; but since I have had such numerous demonstrations of the efficacy of mercury, I have never omitted to administer calomel, so as to insure its purgative and specific effects at the same time. My general plan, therefore, has been, to give one very large dose, or two tolerably free doses of it in the day, followed by some other active cathartic, that plentiful evacuations might be procured before bed-time; while, during the night, I have given it in divided doses, with opium, by way of accelerating its more complete absorption.'

Again, he observes,

'The dose of calomel and opium should be varied according to the nature of the symptoms, and the effect intended to be produced. Where, from the violence of the acute inflammation, or from the long continuance of the subacute, the structure of some vital organ is endangered, calomel should be given in large doses, combined with a due proportion of opium, that the system may be saturated as soon as possible. To fulfil this intention, in some cases, it will be best to administer a scruple of calomel, with two grains of opium, for the first dose, and afterwards to give small and frequently repeated doses of both those medicines.'

The practice of using this combination of calomel and opium, for the purpose of subduing inflammatory action, is acknowledged by our author to be due to the late Dr Hamilton of Lynn Regis. Dr Armstrong seems to have had very extensive experience of its efficacy, and to have acquired the greatest confidence in the power of calomel, employed as a salivant in all cases of phlogosis. His general practice, in all acute inflammations, consists in early and copious venesection ad deliquium; brisk purgatives, and then calomel, or calomel and opium ad salivationem.

'The congestive typhus is distinguished by the hot stage not being at all, or only imperfectly developed, and by simultaneous signs of congestion in one or more of the internal organs.' This is the fever in which the powers of the system seem mastered and subdued by the causa morbi, in which the reaction or excitement is imperfect, and in which it is supposed by our author that one or more of the internal organs are in a state of venous congestion. He thinks, moreover, that, in this variety of fever, there is a general derangement of the balance of circulation, that there is an enfeebled action of the heart and arteries, and an accumulation of blood in the venous system.

The want of reaction, and the oppressed and congested state of the internal viscera, are necessarily accompanied with great apparent debility.

'In the severest cases of congestive typhus, there is, from the beginning, great apparent debility, which speculative men have considered as real, and which they have attributed to the direct influence of the contagion as a sedative, without ever reflecting that it chiefly depends upon the changes which take place in the circulation; and that it is no more to be accounted positive exhaustion than the loss of muscular power which precedes and accompanies the threatenings of genuine apoplexy, to which disease, in fact, this form of typhus has often a most forcible resemblance.' p. 227.

Instead, therefore, of having recourse to stimulants, Dr Armstrong recommends venesection, the warm bath, brisk cathartics, and calomel, as the most safe and efficacious means of relieving the internal congestions, and restoring the reaction of the arterial system.

'It is in the first stage only of the highly congestive typhus, that general blood-letting is admissible with a view of relieving the local congestions, and of restoring the natural balance of the circulation. The practitioner must not fix upon a determinate quantity of blood to be drawn, but rather be guided by the effects produced. Sometimes eight or ten ounces will be quite sufficient, and, at other times, sixteen, twenty, or even more, at one time, may be requisite to relieve the topical engorgements, and to put the general circulation into proper play.' p. 230.

After blood-letting, the pulse generally rises; if it do not, and the tide of the circulation does not return to the surface, a little wine with warm water should be exhibited, and the warm bath and frictions are to be employed. The bowels are next to be evacuated by stimulating enemata, and then by jalap and calomel; and a large blister should be applied over the stomach or liver. In this form of the disease, our author has generally given a scruple of calomel at first, repeating smaller doses three or four times on the first day of the attack; and he thus obtained at once the purgative and alterative operation of the medicine. For a long time he overlooked one of the principal effects of calomel in congestive fevers, till, at last, he tells us, it was forced upon him, '*by patients almost invariably recovering with rapidity when ptyalism was excited.*'

'The power which calomel has in equalizing the circulation, is nowhere more conspicuously displayed than in diseases of a congestive character. Before its exhibition, the skin will be cold, wan, and shrunk; the pulse feeble or oppressed; and the whole system apparently relaxed:—but, as soon as the mouth is made sore from its influence, the skin becomes warm, reddish, and distended with the vigorous circulation, while the pulse is full, soft, and strong, and the general energy in a great measure restored.'

Besides these means, Dr Armstrong remarks, that, in the worst cases of congestive typhus, the moderate exhibition of diffusible stimulants is sometimes really necessary, not only to support the vis vitæ immediately under depletion, but also to contribute, after its employment, to rouse the heart and arteries, that the natural balance of the circulation may be restored. Our author has drawn a parallel between typhus fever and the plague; and, from a collection of the best authorities, he endeavours to show, that all the forms of plague are also reducible to the congestive, inflammatory, and simple; and he infers, that the same active system of early depletion, and purging with calomel, which has been useful in the inflammatory and congestive typhus, will one day be the means of robbing the plague of its terrors.

In the course of these illustrations of typhus, many other diseases are incidentally commented upon, such as dysentery, erysipelas, and the pure phlegmasiæ. The general scope of his observations, is to inculcate the necessity of early and large evacuations at the very onset of the disease; bleeding ad deliquium, cathartics, and the specific effects of calomel and opium.

And his peculiar views of congestion are extended from typhus to the illustration of some cases of apoplexy and mania. He furnishes us also with some good observations on the delirium tremens, or fever of drunkards, for which large and repeated doses of laudanum have been so much recommended. Dr Armstrong's experience renders the universality of this remedy more than doubtful. Bleeding is sometimes, and purging always, useful; and the cold affusion, even when the patient is drenched in sweat, he has found both safe and useful.

We have given our readers but an imperfect and hasty outline of this volume, as it is not one of those books we would wish to save them the trouble of reading.

VII.

A Memoir on the Cutting Gorget of Hawkins. By ANTONIO SCARPA. To which is added, a Biographical Account of J. B. CARCANO LEONE, Professor of Anatomy in the University of Pavia. Translated from the Italian by J. H. WISHART, Member of the Royal College of Surgeons, Edinburgh. Edinburgh, 1816. pp. 88.

It is but justice to the surgeons of the present day, to admit that, in their professional researches, they have been much more zealous in the advancement of medical science, and in the discovery of means to save the necessity of performing operations, than to the contrivance of mechanical means to execute them. There may be still a great inclination in some to make frivolous alterations in the form of insruments; but the more experienced part of the profession pay as little attention to these *improvements*, as a skilful mechanic would be supposed to do to the inventions of an apprentice, whose contrivances are suggested only to remedy his own awkwardness. These observations, however, do not hold true as far as regards lithotomy. There is perhaps no operation which has given less renown to the surgeons of this country of late years. In a short period we have seen gorgets and knives of all forms used by different surgeons, some changing the instrument every time they had occasion to perform the operation. Hence have arisen uncertainty and want of confidence in the operator; and if the reports which have reached our ears be correct, it is dreadful to contemplate the scenes of confusion and mismanagement which have of late been exhibited, in performing this operation, in some of the London hospitals.

In the memoir now before us, there are some observations well worthy of that consideration which has been bestowed on whatever comes from the pen of the celebrated surgeon of Pavia. There are two points on which our author chiefly dwells. The first is the direction and extent of the incision of the prostate gland,—the other, the dilatation of the wound for the extraction of the stone.

> ' In every operation of lithotomy in the perinæum, the apex of the prostate gland must be completely divided, as it opposes the greatest resistance to the introduction of the forceps, and to the extraction of the stone. But with regard to the body and base of the prostate, a lateral incision to the depth of five lines through the whole length of this gland, and therefore including a small portion of the orifice of the bladder, is sufficient, with the assistance of a moderate and gradually increased dilatation, to allow the extraction of a stone of more than ordinary size, without the parts through which it must pass being violently contused or lacerated.' p. 9.

He adds,

> ' There are, therefore, limits to the lateral incision, beyond which it cannot be carried, without exposing the patient to affections (infiltrations of urine) more severe than those which may arise from the presence of the stone in the bladder. This fact, together with that which follows as a consequence to it, viz. the absolute necessity of employing, in every case of lithotomy in the perinæum, a greater or less degree of dilatation of the orifice of the bladder, and of the

base of the prostate, in order to supply the want of length and depth of the incision in these parts, performed even in the best possible manner, constitutes, in my opinion, the fundamental principle of lithotomy by the lateral method, and furnishes a certain rule for appreciating the value of the innumerable instruments proposed for the quick and safe performance of this operation.' p. 10.

After making some observations on the gorget of Hawkins, and of its advantages over the scalpel of Cheselden, he adds,

'I have found that the defects of this instrument consisted in the excessive breadth of the conductor, especially at its apex; in the want of a sufficient elevation of the cutting edge above the level of the groove of the staff; and in the inaccurate inclination of the cutting edge to the axis of the neck of the urethra and of the prostate. The calibre of the neck of the urethra in a man between thirty and forty years of age, is only three lines in diameter at the apex of the prostate; four about its middle, and five lines in the vicinity of the orifice of the bladder. The size or thickness of the prostate at its apex is a little more than two lines; four at its body, and six or even eight lines at its base, where it surrounds the orifice of the bladder. In the middle-sized adult, from eighteen to twenty-five, the thickness of the base of the prostate is two lines less than that of a man of forty, and of large size. The precise line, which in an adult the lateral incision of the prostate ought to have, is found to be inclined to the longitudinal axis of the neck of the urethra and of the prostate at an angle of 69 degrees. According to principles deduced from the structure of these parts, the conductor or director of the cutting gorget of Hawkins which I employ, is only four lines in breadth, and two in depth, and the breadth decreases at the beak. The cutting edge of the instrument is a straight bistoury in the vicinity of the point, but it gradually becomes elevated and convex above the level of the grooved staff; so that its greatest convexity is seven lines in breadth. Lastly, the inclination of the cutting blade to the longitudinal axis of the conductor, is exactly at an angle of 69 degrees; that is to say, the same which the left side of the prostate gland has to the longitudinal axis of the neck of the urethra.

'The following is the method of employing this instrument.—Having introduced into the bladder the grooved staff, the curvature of which corresponds exactly to that of the axis of the neck of the urethra and of the prostate gland, and the beak of which is a little longer than that of the ordinary grooved staff, so that it may penetrate about an inch and half into the bladder; having made in the usual manner the external incision, and that of the membranous part of the urethra, not touching the *bulb*, the surgeon, with his left hand, must hold the grooved staff very firmly in a perpendicular line to the body of the patient, and pressed against the arch of the pubes; then taking in his right hand the cutting gorget, and having inserted its beak into the groove of the staff, so that the convexity of the conductor is placed directly over the rectum, he will make the gorget run in a line as much as possible parallel to the horizontal extremity of the staff placed in the bladder, and he should not stop until he feels the beak of the gorget reach the closed extremity of the groove of the staff. After this, he withdraws the staff from the bladder and urethra; and along the gorget, as a director, he will introduce the forceps; and close to them draw the cutting instrument gently towards him, removing it in the same direction as that in which it was introduced. Finally, having ascertained, by means of the forceps, the position of the stone, he will carefully open the blades, and, with them, gradually dilate the neck of the urethra and the orifice of the bladder, as much as to enable him to lay hold of the stone with facility, and extract it without bruising or lacerating the parts through which it must pass.' pp. 17—20.

In general, with regard to surgical instruments, and, in particular, those which have been proposed for the lateral operation of the stone, Dechamps is of opinion, that the most perfect and useful are those in which no improvement has ever been proposed. The shape in which Scarpa reintroduces the gorget of Hawkins, 'is less an improvement than a modification of its original form, because it fulfils more accurately than it did in its primary form, the indication of cutting the prostate laterally, and to a proper depth, as Cheselden did, without running the risk of wounding the deep pudic artery, or the rectum.' p. 30.

The biographical account of Carcano Leone, a celebrated anatomist and surgeon, who was born in the year 1536, is interesting; and we consider ourselves much indebted to Mr Wishart for presenting an elegant translation of the two Memoirs to the English surgeon.

PART III.

MEDICAL INTELLIGENCE.

REPORT of DISEASES treated at the EDINBURGH NEW TOWN DISPENSARY, *from June* 1*st to September* 1*st, and from September* 1*st to December* 1*st,* 1816.

	Sum.	Aut.
Febris continua	19	28
—— ephemera	14	6
—— intermittens	2	1
—— infant. remittens	68	41
—— dentitionis	36	36
Hydrocephalus	3	4
Cephalæa	34	16
Mania	2	1
Delirium tremens		1
Apoplexia		1
Epilepsia	4	5
Convulsio	2	8
Ophthalmia acut.	49	81
—— chronic.	54	
Cataracta	2	
Amaurosis		2
Staphyloma		2
Fistula lacrymalis		1
Otalgia	2	1
Surditas	4	4
Epistaxis	1	
Ozæna	1	
Odontalgia	25	21
Suppuratio sinus maxillaris	1	
Fungus hæmatodes sinus maxillaris et oris	1	
Ptyalismus	1	
Aphthæ et ulcera faucium	9	7
Cynanche tonsillaris	20	19
—— trachealis		4

	Sum.	Aut.
Catarrhus	56	107
Pneumonia	23	19
Pleurodyne	29	17
Phthisis	32	20
Hæmoptysis		8
Asthma et Dyspnœa	5	17
Pertussis	54	91
Palpitatio	2	4
Pericarditis	2	
Aneurisma aortæ	1	
Syncope	1	
Hepatitis	3	6
Icterus	3	2
Scirrhus pancreatis et ventriculi	1	
Scirrhus cardiæ		2
Hæmatemesis	5	2
Dyspepsia	102	90
Hypochondriasis	5	
Hysteria	14	30
Enteritis	5	2
Peritonitis	1	
Scirrhus coli	1	
Colica	42	6
Obstipatio		23
Tormina		11
Cholera		2
Diarrhœa	25	43
Dysenteria	7	4
Scirrhus recti		1
Vermes	50	4

	Sum.	Aut.
Tabes mesenterica	2	2
Physconia		3
Hæmorrhois	7	6
Hernia	7	2
Prolapsus ani	1	
Hydrops		4
Anasarca at œdema	8	
Ascites	2	
Hydrops ovarii	2	
Diabetes	1	
Dysuria	4	8
——— urethralis	2	2
Hæmaturia	1	
Nephralgia	4	
Gonorrhœa	4	6
Paraphymosis	1	2
Phymosis		2
Hydrocele		1
Inflammatio testis	1	2
Hæmorrhagia uteri	19	14
Leucorrhœa	3	8
Scirrhus uteri	1	2
Prolapsus uteri		1
Retroversio uteri		1
Amenorrhœa et chlorosis	8	4
Dysmenorrhœa	3	
Rheumatismus	57	38
Podagra	2	
Paralysis	7	3
Asthenia	3	
Rachitis	2	2
Scrofula ossium et articulorum	21	8
——— glandularum	11	23
Morbus spinalis		4
Syphilis	4	9
Pseudo-syphilis	1	4
Phlegmon	28	27
Mastodynia	7	7
Paronychia	4	7
Anthrax		1
Gangræna brachii		1
Erysipelas	5	7
Erythema	7	6
——— papulatum		2
Variola	7	
Varicella	1	12
Rubeola	16	298
Scarlatina	5	8
Miliaria	1	
Urticaria	3	5
Strophulus	8	2
Lichen	7	3
Prurigo	3	
Lepra	3	7
Psoriasis	4	13
Roseola		1
Purpura	1	1
——— hæmorrhagica		1
Ecthyma	3	4
Impetigo	14	11
Porrigo	32	51
——— decalvans	1	
Psora	34	44
Rupia	1	
Herpes	9	10
Acne	1	
Lupus	1	1
Eruptiones variæ	3	
Aneurysma per anastom.		1
Tumores		8
Ulcus	26	43
Ustio	8	9
Vulnus	14	18
Luxatio	1	
Contusio et subluxatio	42	51
Fractura	2	

Observations on the Report from June 1. to September 1.

No summer is remembered in which the weather has been more unfavourable than in that which is included in the period of this report. During its continuance, there has been no continued warm or dry weather; cold winds from the east, varying occasionally to the north and north-west, with a clouded sky, and almost daily rains, have prevailed. During August, there were slight thunder-storms, with cold rains and hail-showers, but without the heat which usually precedes these storms, or the settled weather which commonly succeeds them. In the beginning of September, when, in ordinary seasons, the harvest here is general, the corn crops are this year still green, and the ear imperfectly filled; and, in the higher grounds, the green crops have been checked, and, in some situations, materially injured, by the intensity of the cold which has prevailed during the night.

This state of the weather, together with the privations and hardships necessarily arising from the want of employment among the labouring poor, seems to have added to their other miseries an unusual degree of disease. Inflammatory complaints, in adults particularly, of the chest and of the throat, have been as general as in the spring, requiring the frequent and free use of the lancet; and the proportion of rheumatic complaints is equally great with that in the last report. The applications on account of phthisis have been numerous, and our consumptive patients have experienced little of the alleviation of their complaints which is usual during this season of the year. The inflammatory catarrh among children, however, seems to have entirely disappeared; but, among this class of patients, the number of diseases arising from a disordered state of the bowels has very considerably increased, as is evinced in the list by the heads febris remittens, vermes, diarrhœa, &c. Among adults, dyspepsia, and other diseases of the alimentary canal, which deficient nutrition and depression of spirits contribute to produce, have been exceedingly prevalent; but there have been no cases of those diseases of the bowels, which arise from a disordered state of the biliary and digestive organs, produced by the exposure to heat.

Of the continued fevers, a considerable proportion arose evidently from contagion. Several of the cases occurred in Stockbridge, a village in the suburbs, and the others in families residing in different and distant parts of the town. The contagion did not readily spread; and the fever, though frequently long-continued, has not been of a malignant nature, and has yielded in all the cases to the use of the cooling treatment, with purgatives, in the early stages, and a very moderate use of wine and light diet, after the heat of the skin began to abate, and the tongue to become moist.

The hooping-cough, which exists almost constantly in Edinburgh, has prevailed to a great extent during the last summer; but, if we may judge from the cases which have come under observation, it may be said to have been mild, and has but very rarely been attended with convulsions, which are so commonly a consequence of this disease.

No other contagious disease appears, from the records of the Dispensary, to have prevailed epidemically during the first eleven months of its institution. Cases of the small-pox have occasionally occurred among children, who, either from the prejudice or carelessness of their parents, have not been vaccinated ; but the very general confidence in the antivariolous powers of the cow-pox which happily exists in this city, and the stimulus which is given for its inoculation, even among those who had neglected it, by the appearance of the small-pox, limit very much the operation of this contagion. During the last two or three years, we have had an opportunity of seeing, and have heard of various insulated instances of scarlatina existing in different families among the higher classes, as well as among the poor, and several cases are mentioned in the records of the Dispensary ; but we do not know that it has prevailed during that time, or that it at present prevails epidemically in any quarter of the town. It is singular, that, among the numerous applications to the Dispensary, no case of measles presented itself from its commencement in September last till the end of July. At this time, we heard of some children having been brought from Glasgow affected with the measles, and soon after had occasion to see several cases in various parts of the town ; and, from the crowded situations in which it has appeared, and the readiness with which it seems to have been communicated among the neighbouring families, it is likely that the contagion will be extensively and rapidly diffused. It affords a curious subject of inquiry, to investigate what the causes are by which different contagious diseases, existing at the same time, or even the same contagious diseases at different times, are disposed to extend themselves more or less readily, in circumstances apparently very similar.

It will be observed, that the number of cases of ophthalmia, which have occurred during the last three months, has been very great. This disease has been in a certain degree epidemic, and in some instances has prevailed in particular streets and closes, and has successively attacked all the individuals of families, so as to excite a belief of its contagious nature. It has been in general mild, and has yielded to moderate bleedings, sometimes assisted by blisters, and the antiphlogistic regimen, followed by the application of slightly stimulant and astringent collyria. In some cases where small pustules had formed on the conjunctiva, or ulcerations were present on the cornea, the cure was much promoted by the division, by the scissars, of the vessels by which these were nourished.

In the Midwifery department, 87 women have applied between the 1st of June and 31st of August last. The number of deliveries during that period has been 61. Of these, there were 56 natural labours; one preternatural, in which the nates and feet presented; and four complex, viz. two in which the placenta was attached over the os uteri, both delivered by the operation of turning; one case of twins, in which the head of each presented; and the fourth, complicated with hæmorrhage from induration of the placenta. Of the 62 children produced, 40 were males, and 22 females. *

Observations on the Report from September 1. to December 1.

The very variable, but generally moist, cold, cloudy weather of the last autumn, and the consequent imperfect ripening of fruits and grain, and lateness of the harvest, which, even in some parts of the Lothians, was retarded until the middle of November, must be in the recollection of all our readers.

The leading feature of the practice of the Dispensary, within the last three months, has been the prevalence of measles, which have generally been severe, and, especially in young children, in many cases fatal.

There has been much variety, both in the appearance and duration of the eruption, and in the nature and urgency of the concomitant symptoms; and death has occurred in different individuals in very different circumstances; an enumeration of which, as pointing out the occurrences most to be dreaded in the course of the disease, may probably be more instructive than any practical suggestions we could offer,

Where the eruption has lasted the usual time, or at least fully three days, and death followed, that appeared to have been owing, in some cases, to the exhaustion produced by hooping-cough, with which the measles have been often combined; in other cases to spasmodic attacks, approaching or even amounting to convulsions, which seemed to be the effect of the irritation of teething superadded to the disease. In three cases it proceeded from well marked croup, which supervened suddenly at different periods, within a fortnight after the decline of the eruption, and proved quickly fatal, notwithstanding the free use of calomel, which operated fully. In three other cases, in which these causes were out of the question, death seemed evidently to proceed from the affection of the lungs, marked by very quick, short, oppressed breathing, with cough and fever, but without acute pain in the breast, which came on, or was much aggravated, soon after the eruption faded. In the only one of these, in which examination after death was possible, the morbid appearances observed were, a highly inflamed state of the whole extent of the bronchia; a copious effusion into them, which had partly the appearance of mucus, and partly of bloody serum; and a more partial effusion of this last kind into the cells of the lungs, with some adhesions of these to the pleura costalis. The subject of this dissection was a boy eight years of age, who had been twice bled.

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* In the last quarterly report, instead of ' the first class of labours, ' read, of the first order of laborious labours; and instead of, ' of the third class 1, ' read, of the third order 1.

But in a majority of the fatal cases of the disease which we have seen, as well as in several who recovered, the eruption disappeared much sooner than usual, generally within the first 24 hours; or, if it was visible for three days in succession, it continued so only by extending itself gradually over the body, not by maintaining itself where it first appeared. This could not be ascribed to exposure to cold, nor to the use of cathartics during the eruption; * indeed, it was often easy to foretel, from the appearance of a patient before the rash came out, that it would soon recede.

Those affected in this way were chiefly infants, but a few were children from four to seven years of age. They were ill longer than usual, generally five or six days, before any eruption appeared, having the usual catarrhal symptoms, with much debility and drowsiness; frequent vomiting; generally frequent and sometimes bloody stools; quick pulse, and white tongue, without much heat of skin. When the rash appeared, it was at first less distinctly circumscribed, and afterwards less elevated than usual, of a darker colour, and attended with less heat of skin. After its recession, the patients were more or less distressed with cough and dyspnœa, generally with diarrhœa, and almost always with a frequent ineffectual attempt to vomit. The pulse and breathing became very quick; the tongue, after losing the white crust which had covered it at the beginning of the disease, became dry and hard; the posture indicated much debility; the countenance had the languid vacant expression of typhus; and a dark-coloured fur usually gathered on the lips and teeth. In all these cases there was a degree of drowsiness approaching to coma; and, in a few, this state appeared to be blended with delirium.

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* Which are the causes assigned by systematic writers for such an occurrence.

Some of these symptoms, particularly the indications of unusual debility, the hard dry tongue, and the black für on the lips and teeth, appeared to a certain extent in patients, particularly in close ill-aired situations, in whom the eruption lasted the usual time. In two or three instances, infants exposed to the contagion of measles, became affected with catarrhal symptoms, fever, drowsiness, quick and oppressed breathing, and died, without any eruption being observed.

In the cases of speedy recession of the rash, if the cough and dyspnœa were urgent after its disappearance, death almost uniformly ensued, at different periods, from the 1st to the 14th day after that change. But those in whom the pectoral symptoms were less distressing, recovered from the state above described under the use of wine and cordials, which, as far as we could judge, were as decidedly beneficial in these, as in any other cases in which we have seen them used. It should be mentioned, however, that one or two, who could not be prevailed on to take either food or medicines, gradually mended without any crisis being observed.

On opening the bodies of those who had died of this form of measles, a considerable accumulation of mucus in the bronchia was always found. In two infants, under a twelvemonth, there were marks of inflammation of the lungs themselves (which in one of these had proceeded to ulceration), and a good deal of water in the pericardium; and in one child, four years of age, there was such a congestion of blood in the lungs, that a large portion of them sunk in water.

In several cases, in which the eruption had almost or entirely disappeared on the second day, it reappeared that night, after the use of the warm bath, and an opiate, and continued nearly the usual time.

An aphthous state of the mouth and tongue occurred pretty frequently, but was not confined to the unfavourable cases.

The greater part of the children in whom the measles had this irregular form, were in ill-aired dirty rooms, but they were almost all in the same rooms with others, in whom the disease had its usual course. Most of them were children of feeble habit, or weakened by previous illness; but others appeared to have been quite healthy when exposed to the contagion.

The circumstances of the livid colour, and rapid recession of the eruption, of the succeeding typhoid state, and the irritability of stomach attending that state, seem to point out a resemblance between the cases of measles now described, and the worst cases of scarlatina.

The simultaneous occurrence of measles and hooping-cough in many of the cases under our care, has enabled us to satisfy ourselves, that the doctrine of the 'hooping-cough being superseded by the occurrence of measles,' does not generally hold. In several cases in which hooping-cough had been going on for some time, the paroxysms of it appeared to us to be as distinctly marked during the whole course of the measles, as at any former or subsequent period; and in others, in which it had nearly subsided, the characteristic mode of coughing was renewed by the occurrence of measles, and continued during, and for some time after, that disease.

From the 1st September to the 30th November, the number of applications in the midwifery department were 84; the number of deliveries 55. Of these there were 43 natural labours; four preternatural, viz. two feet, and two breech presentations; two laborious, in one of which, delivery was effected by the forceps; three complex, viz. one case of twins, and two attended by convulsions; and three cases of premature labour. Twenty-seven of the children were males, and 29 females.

Medical Department of the Army.

We feel much pleasure in assisting to circulate the following recent regulations respecting the qualifications necessary for entering into the medical department of the army, and the circumstances which are in future to be considered as recommending a candidate for promotion.

'The Army Medical Board, solicitous for the improvement of the department in its various branches, and considering the present a favourable opportunity for the selection and encouragement of well educated persons, have thought it advisable to promulgate the courses of instruction, and the qualifications required from gentlemen entering the medical department of the army, and during the progress of advancement in the service,

For Hospital Assistant.

'The candidates for this first commissioned appointment in the medical department, must produce certificates of regular study, in the following branches of professional knowledge, at an established school of eminence, viz.

Anatomy. Practical Anatomy. Practice of Medicine. Chemistry.	*During the full period of Twelve Months.*
Materia Medica. Botany.	*During Six Months.*

'The practice of medicine and surgery in an hospital or infirmary at least one year, with a regular apprenticeship, or three years without an apprenticeship; in which case a certificate of having studied practical pharmacy will be required. Regimental medical officers should also be acquainted with midwifery. It will be considered an additional recommendation to gentlemen entering the service, to have attended public establishments for diseases of the eyes, and mental derangement.

' A liberal education is indispensably requisite; and the greater the attainments of the candidate are in the various branches of science, in addition to competent professional knowledge, the more eligible will he be deemed for promotion; as selections to fill vacancies will be guided more by reference to such acquirements than to seniority.

' By the established regulations, every gentleman must have served five years at least in the junior appointments, before he can be promoted to the rank of regimental surgeon; and he who gives the best proofs of diligent exertion in the performance of his public duty, and of attention in the acquirement of practical knowledge, will be noted as the most eligible candidate for advancement.

' Gentlemen already in the service are earnestly recommended to avail themselves of every opportunity of adding to their knowledge, by attending universities or schools: for which purpose, every facility will be afforded by the Director-General. They are especially desired to transmit to this Office, certificates of such classes as they may have attended subsequently to their examinations before this Board, either on professional or other branches of science, that the same may be duly registered: and every gentleman must be prepared for a second examination, if called upon, before he obtain further promotion.

' Medical officers are encouraged and recommended to look forward to the appointments of surgeon to the forces, and of physician to the forces; and to endeavour especially to qualify themselves for either, according to the bent of their inclinations, and to their previous study.

' For commission of *Surgeon to the Forces*, it will hereafter be expected that the candidate shall have attended a public hospital three years, one of which must have been passed in London; and a diploma from the Royal College of Surgeons of London will always be respected.

' The rank of *Physician to the Forces* requires, in addition to the knowledge and experience to be gained in the regular progress of study and of service, that the candidate should be a licentiate of the Royal College of Physicians of London, or a graduate of the University of Oxford, Cambridge, Edinburgh, Dublin, or Glasgow. The license of the London College of Physicians will always be considered a great recommendation to those who have the other requisite qualifications.

' Although the British schools are specified, it is to be understood, that candidates who have received regular education in foreign universities, or other schools of acknowledged celebrity, will be admitted to examination.'

Army Medical Board Office, September 30, 1816.

Society for the Benefit of the Widows of the Officers of the Hospital and Regimental Medical Staff of his Majesty's Army.

The activity and philanthropy of the present chief member of the Medical Board, extend their beneficial influence to every object connected with the important situation he fills; and we are disposed to consider the institution of this Society as one whose good effects will be uninterruptedly progressive. Such an institution was the more necessary, because, at the common life insurance offices, the lives of medical officers either were not insured at all, or only at premiums totally disproportioned to the risk. For, we believe, it has been ascertained, that the life of a medical officer is, upon an average, not *worse*, to use a technical term, than the life of a civilian.

The resolution to form this Society was entered into at a numerous meeting of officers of the general and regimental hospital staff, held at the British Coffeehouse on the 22d December 1815, Sir James Macgregor, Knt. M. D. in the chair; and a committee was appointed to draw up the rules and regulations for the management of the Society. At another general meeting, held on the 2d March 1816, Francis Knight, Esq. in the chair, a code of regulations was finally adopted, and the various office-bearers were appointed. The deed of settlement was afterwards printed and circulated, by which it appears, that the Institution is stated as having been established on the 1st January 1816; and the first half year's Report, which we annex, gives a satisfactory view of its progress.

Report made at the Anniversary Meeting of the Society for the Benefit of Widows of Officers of the Hospital and Regimental Medical Staff of the Army, held at the Thatched House Tavern, St James's, on the 8th June 1816.

Every one who feels an interest in the success of the Society lately formed for the purpose of establishing a fund for the benefit of widows of medical officers of the army, will learn with pleasure, that this Institution has already met with a greater degree of support than had been contemplated by the most sanguine, notwithstanding the very great reduction of the staff consequent to peace, and other circumstances unfavourable to the advance of money.

In order that experience, rather than speculation, should form the basis of this Institution, the regulations by which the most prosperous establishments for similar purposes are conducted, were carefully consulted; and, as the productive powers of money in accumulating capital are subject to the unerring principles of arithmetical calculations, it was deemed expedient to submit the resources from which it was proposed to create a fund for the benefit of widows of medical officers of the army, to the rigid scrutiny of gentlemen eminently skilful in such matters.

From such excellent sources of information much has been gained, which it will be the interest of this Society to imitate, while some things have also been learned, which it will be the duty and care of its managers to avoid.

The Society has for its first object the creation of a capital, the interest of which shall be adequate to pay the stipulated yearly pensions to the widows of contributors.

The next object is to extend the benefits of the fund to the orphans of contributors, as soon as the association shall possess a sufficient capital to enable it to accomplish so desirable an end, without detriment to the widows.

The sum of money already accumulated by the Society has enabled the managers to purchase L. 1671, 10s. 9d. in the 3 *per cent.* stock; and, in addition to this, there is as much now receivable as will, at the present rate of that stock, purchase L. 800, making a capital of L. 2471, 10s. 9d. in the 3 *per cents.*, the increase of which will be the more rapid, from the resolution recently entered into of freeing the fund from the expenses of management, by a voluntary subscription.

The number of subscribers already amounts to 230, of whom 153 are subscribers of the highest rate, [*] and 77 are subscribers of the lowest rate; [†] of these 159 subscribers are unmarried, and 71 are married. [‡]

It is to be observed, that the fund in possession of the Society has accrued almost exclusively from officers of the medical staff in Great Britain.—It is therefore but reasonable to look for a very important accession of numbers from the East Indies, Ceylon, the Isle of France, the Cape of Good Hope, St Helena, the numerous islands in the West Indies, Canada, and France.

From the countenance the Institution has experienced in its commencement, which is, even at this early stage, sufficient to insure success, there is every ground for confidence in the result.

N. B. Since the above report was made, there are nearly thirty more subscribers added to the list.

Society for the Relief of Widows and Orphans of Medical Men in London and its vicinity.

THIS laudable Society, which was instituted in 1788, held its anniversary festival on the 29th October 1816. By the printed lists, it appears that it now consists of 328 of the most respectable individuals in every branch of the profession. Since its institution, 144 members have died, and 32 of their families have applied for and received relief, in all to the amount of 5282*l.* The annual subscription is two guineas; but many benefactions and legacies have been received from the friends of so laudable an Institution. The allowances to widows and orphans, or to mothers and sisters, seem to depend upon circumstances; but, to entitle any of them to receive relief, they must be left a widow with less than 40*l.* a year, and 12*l.* for each child; or orphans with less than 20*l.* a year.

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[*] Subscribers of the first class, who are married, pay *five* guineas annually; those who are not married, *two* guineas.

[†] Married subscribers of the second class pay *two guineas and a half;* unmarried subscribers *one* guinea annually.

[‡] Married subscribers of the first class pay a fine of *ten* guineas, and of the second *five* guineas, at the time of subscribing. Unmarried subscribers, who afterwards marry, pay a fine of *twenty* guineas, if of the first class, and *ten* if of the second. There is also another fine imposed upon subscribers married or marrying, for every year above five that they are older than their wives, regulated by the age of the subscriber.

Medical News. Communicated by Dr von EMBDEN.

Gottingen.—THE Royal Society of Sciences has just published *Commentationes Societatis Regiae Scientiarum Göttingensis recentiores*, Vol. III. ad annos 1814 et 1815, with 16 plates. After an annual report of the particulars of the Society, such as the decease of many of the members and correspondents of the Society, and the election of new ones; the fate of such prize-questions whose terms have expired, and the new ones that have been proposed, with a retrospect of the lectures; the volume is divided in three parts, viz.

I. *Commentationes classis physicae*, which contains the following interesting articles.

1. Blumenbach, specimen archaeologiae telluris terrarum imprimis Hanoveranarum alterum.

2. Osiander de homine, quomodo fiat et formetur, series observationum una cum descriptione staterae portatilis ad examinandum infantum neonatorum pondus nuper inventae.

3. Blumenbach, specimen historiae naturalis ex auctoribus classicis praesertim poetis illustratae, eosque vicissim illustrantis.

4. Hausmann, observationes de pyrite gilvo s. hepatico ac radiato auctorum.

The following two parts, not belonging immediately to our department, we only mention the names of the divisions, which contain equally interesting subjects.

II. *Commentationes classis mathematicae.*

III. *Commentationes classis historicae et philologicae.*

Prize Questions. Communicated by Dr von EMBDEN.

St Petersburgh.—THE academy of sciences has offered a prize of 100 Dutch ducats, for the best answer to the following question, which is to be sent, before the 1st of January 1818, to the perpetual secretary of the academy, in either the Russian, French, German, or Latin language, with a device; and accompanied by a sealed paper, having on the outside the same device which is upon the treatise, and enclosing the author's name. No treatises coming to hand later than the mentioned period, can be admitted to the concurrence for the prize. To prevent any ambiguity, we give the words of the original programme.—On ne sauroit nier que, nonobstant les recherches

multipliées instituées sur la melange des alkalis et des terres, si nous en exceptons la potasse et la soude, les autres nous laissent encore beaucoup à desirer, pour arriver à une connoissance complete des especes de metalloides réellement existantes. L'academie convaincue de l'importance de ce sujet, d'où dependent les progrès ulterieurs des sciences physiques, propose un prix, qui sera adjugé au physicien qui lui aura communiqué la serie la plus satisfaisante d'experiences propres, instituées sur les melanges des alkalis et des terres, qui jusqu'ici n'ont point encore été complétement examinées. L'academie desire de diriger l'attention des physiciens principalement sur les points suivans.

1. Faire la revision des toutes les expériences instituées sur le kali et le natron, et sur les bases metalliformes qui y sont conténues, et examiner plus exactement les resultats qu'on en a tirés.

2. Soumettre l'ammoniaque à un examen particulier et plus soigneux, à fin de prouver d'une manière décisive, laquelle des opinions émises sur son melange est la mieux fondée, et si le prétendu metalloide qu'il contient peut être représenté isolement.

3. Examiner d'une manière plus complete qu'on ne l'a fait jusqu'ici, les substances metalliformes des differentes terres, voir si elles peuvent être produites dans leur etat pur et isolé, connoître leurs propriétés, tant dans cet etat, que dans la combinaison avec d'autres substances, et indiquer les rapports differens et determinés dans lesquels elles peuvent être presentées. Outre le prix qui sera décerné à l'auteur du mémoire le plus satisfaisant, l'academie lui promet un nombre de cent exemplaires du memoire couronné en dedommagement des fraix que pourront occasioner les expériences à faire sur des terres rares.

Göttingen.—The physical class of the Royal Society of arts offers the following question—'To prove unequivocally and decidedly, by experiments, whether muriatic acid, and oxygenated muriatic acid, be really oxygenated substances, that is, combinations of a combustible base with oxygen; or, whether these bodies do not contain oxygen, and that, consequently, oxygenated muriatic acid is to be considered as a simple substance, analogous to oxygen?'

The prize is 50 ducats. The question is to be decided on, in November 1818; and the treatises, which are to be in *Latin*, to be sent in, post paid, before the end of September 1818.

Paris.—The Cercle Medical offers a gold medal, value 300 francs, for the best answer to the following questions.

'1. What is the nature of hydrophobia, and in what does it consist?

'2. What are the characteristical symptoms of it in men and animals?

'3. Does any state exist, in which this disorder spontaneously unfolds itself in mankind?

'4. Are there any more kinds of it than one, and what are they?

'5. Are they all of them contagious to mankind, and how are they communicated?

'6. Are the symptoms following the bite of a rabid animal to be attributed to a peculiar poison, to the nature of the bite, to the lesion of the bitten part, or to fright?

'7. Do the fluids and solids exhibit any particular change peculiar to the disorder, during life, or *post mortem?*

'8. Which is the best treatment, as well for the prevention as cure?'

A prize of 200 franks was offered already by this Society for the same questions in 1813, with an addition of 100 franks from the President Professor Bosquillon's private purse; but no satisfactory answer being sent in, in 1814, the question was re-proposed for April 1815, when likewise no answer being found to deserve the prize, the questions were again put up for the end of 1816; against which time, the treatises, written in Latin or French, are to be sent to Dr Chardel, secretary-general to the Cercle Medical, rue Lapette, No. 13, with an inscription, and accompanied with a paper sealed up, containing the same inscription, and the author's name.

N. B. The ordinary members of the society are excluded from the concurrence for the prize.

Poisonous Effects from the Sting of a Bee.

James Grierson of Dalgoner was taken suddenly with sickness, 28th June 1814, which begun like severe water-brash, arising from the bottom, or pervading the whole stomach. He left the parlour, where there were strangers, to lie on the bed. He had not been on the bed more than a minute, when he had a call to vomit; but he was scarce at the basin-stand, four yards distance, when his stomach was completely emptied, like the shot of a gun. In great distress he sat down on a chair, leaning his head on the basin-stand, which is the last thing he remembers: Having fainted, and, falling on the floor, he lay there unnoticed till called to dinner: the fall of the basin was heard, but not attended to.

The first thing he recollects, was noticing the basin broken, the stand overturned, and himself on the floor, when he must have fainted. The next thing noticed was the sound of several voices speaking, and persons rubbing his hands and feet; this was while he felt himself as slowly awaking, and recollects that several times he opened his eyes, but could see no light. It was noticed, that he looked very high then. At this time he had a call to purge, which was almost as quick and violent as the vomit.

When put to bed, he kept sweating, with a low pulse, shaking violently at times, more especially one or two hours after, than at first: in about six or seven hours he recovered. He was much at a loss what to ascribe all this to; for, though in his 59th year, he is perfectly healthy, unless that a bowel complaint comes frequently and unaccountably on him, but it seems to carry off all others. Though subject to cholics and colds in early life, he has had neither for a dozen years at least.

At first he imputed his illness to indigestion, though his breakfast had been, as often, a plate of porridge and milk, with a cup of tea, and one slice of bread; but he thought the milk tasted unusually strong, and having been a fortnight immediately preceding from home, he had had no porridge during that time.

Also, immediately before, he had been walking in the fields, when rain fell, and had got his feet wet, and his clothes a little so; but he washed his feet and legs, and put on dry stockings, which seldom fails to prevent injury to him; but he thought, hurrying to be with the strangers, he might not have sufficiently attended to drying his feet, and he was then, as usual, in cotton clothes, though, when from home, dressed in warmer wool clothes.

None of these causes, however, seem equal to such an effect. But he had been stung with a bee on the back of the middle finger of the left hand while drying his feet, which caused little pain and no swelling, though formerly such a sting caused great swellings on him. He sometimes thought of the sting, but could not allow himself to think *that* could occasion so much trouble. He is now of a different opinion; for, on the 6th July, he was stung by another bee on the same part of the middle finger of the right hand, which produced similar effects, but not nearly so violent;—no fainting, but considerable sickness and nausea, sweating, and some shaking; besides, so much asthma, that when he was in the one room, the difficulty of breathing was heard in the other, and a cough produced expectoration that was extremely salt-tasted; and Miss B——, his niece, who happened to be present on the 6th July, said the sting of a wasp had caused considerable sickness to her.

Analysis of the Excrement of the Boa Constrictor.

Two Boa Constrictors were lately exhibited here. The keeper, as a part of their history, mentioned that they very rarely passed any excrement, and that only when they were put in a vessel of water to refresh themselves by swimming. He also showed the excrement itself, thinking it curious from its resemblance to chalk. A small portion was analyzed, at the request of the Editor, by Mr Da Costa, and found to consist of

Phosphate of lime,	3.
Carbonate of lime,	2.
Albumen, -	5.
	10

Example of Congenital Amaurosis as a Family Disease. By Mr Lyall, Surgeon.

At a meeting of the Paisley Philosophical Society, held 22d February 1813, Mr Lyall gave the following account of a family, in which three of the children were born blind, apparently owing to insensibility of the retina. David Stewart and wife are healthy people; have had seven children, all of fair complexion, and with blue eyes, and generally healthy. The three oldest children, who are dead, saw quite well; the two next were born blind; the sixth sees; and the seventh was also born blind. The last four are living.

Case I.—Margaret Stewart, æt. 10. At a little distance, one would suppose her eyes were quite perfect, with respect to vision. When examined more closely, the eyeballs are often seen rolling, not being fixed on any object. They have a glossy appearance. The pupils are large; and, when the eye is suddenly exposed to a strong light, they contract a little. When the candle is held still very near the eye the pupils seem in a small degree to contract and dilate alternately. Vision is so imperfect, that it is with some difficulty she can distinguish the candle or the fire. Eyeballs large, and seem a little sunk in the orbit. Never had any disease of the eyes. Passed through the smallpox and measles in an easy manner.

Case II.—Jean Stewart, æt. eight years of age. General appearance, and eyes similar in every respect to her sister's, except that the eyeballs are more sunk in the orbits; and she is unable to distinguish a candle or the fire.

Mrs Stewart thinks they both saw a little better when younger, but cannot be positive.

Case III.—David Stewart, a child rather more than two years of age. Eyeballs very much sunk in the orbits, similar to the other cases in appearance. He follows a candle steadily, but distinguishes none but very luminous bodies.

Note by the Editor.—There is a similar occurrence in a family of high rank, residing in this city. It consists of eight children, three of whom are affected with congenital amaurosis. Neither father nor mother are affected with the disease, nor can it be traced to any cause.

We hasten to print, for the information of the profession at large, the following bill, introduced into the last session of Parliament, and which has only lately reached us. We have not room at present to investigate it in all its bearings; but it appears to as not at all calculated to attain its professed object, but, on the contrary, to be fraught with multifarious evils.

A Bill for Regulating the Practice of Surgery throughout the United Kingdom of Great Britain and Ireland.

Whereas ignorant and incapable persons are not restrained by law from practising surgery, whereby the health of great numbers of persons is much injured, and the lives of many destroyed;

May it therefore please your Majesty,

That it may be enacted, and be it enacted by the King's Most Excellent Majesty, by and with the consent of the Lords Spiritual and Temporal, and Commons, in this present parliament assembled, and by the authority of the same, That from and after

it shall not be lawful for any person to practise surgery, for lucre or profit, unless he shall have been personally examined, as to his qualifications and fitness thereto, by the Royal College of Surgeons in London, or by the Royal College of Surgeons in Edinburgh, or by the Royal College of Surgeons in Ireland; and unless he shall have received a diploma or testimonial of his knowledge and ability to practise surgery, under the seal of the Royal College before whom such examination shall have been made; for which diploma or testimonial the usual fee, and no more, shall be demanded and received.

And be it further enacted, That every person who shall have been so examined, and shall have received such diploma or testimonial under the seal of either of the said Royal Colleges, shall be entitled and shall have the right to practise surgery in any and every part of his Majesty's dominions, any law or custom to the contrary notwithstanding.

Provided always, and be it further enacted, That all and every person or persons who shall have been duly examined, and shall have obtained a testimonial or qualification as a principal surgeon in his majesty's army or navy, and who shall have actually served in that capacity, shall be entitled to practise surgery in any and every part of his majesty's dominions.

And whereas by a certain statute of the parliament of Ireland, passed in the thirty-sixth year of the reign of his present majesty, intituled, ' An act for the further regulation of public infirmaries or hospitals, ' it is enacted, That from and after the passing of that act, no person should be capable of being elected surgeon to a county infirmary or hospital, who should not previously have obtained letters testimonial of his qualification under the seal of the Royal College of Surgeons in Ireland; and that no other qualification or examination should be necessary to make any person capable of being elected surgeon to such infirmary or hospital: And whereas by another act, passed in the fifty-fourth year of the reign of his present majesty, intituled, ' An act to amend several acts for erecting or establishing public infirmaries or hospitals in Ireland, so far as relates to the surgeons or apothecaries of such infirmaries or hospitals,' it is provided, that letters testimonial of the College of Surgeons in Ireland shall be laid before the grand juries in the said act mentioned, previous to the requiring or making any presentment of any sum of money to the surgeon to any infirmary or hospital by such grand juries: And whereas it is just and expedient that the provisions of the said acts should be extended to the members of the Royal College of Surgeons in London and in Edinburgh; be it therefore enacted, That the members of the Royal College of Surgeons in London, and of the Royal College of Surgeons in Edinburgh, shall be eligible to all the offices and appointments mentioned in the first-recited act, and shall be entitled to all benefits and advantages given and intended by the second-recited act, on the production of the diplomas or testimonials under the seal of their respective Royal Colleges, in the same manner as the members of the Royal College of Surgeons in Ireland have been since the passing of the said recited acts.

And whereas surgical aid is frequently required in the practice of midwifery, and it is expedient that male persons so practising, should be qualified to render such aid; be it therefore enacted, That from and after   it shall not be lawful for any male person to practise midwifery, unless he shall have obtained a diploma or testimonial of his knowledge and ability to practise surgery, under the seal of one of the said three Royal Colleges; or unless he shall have obtained a testimonial of qualification as a principal surgeon in the army or navy, and shall have actually served in that capacity.

Provided always, and be it further enacted, That nothing in this act contained, shall be deemed or taken to extend to any person resident in Great Britain or Ireland, and actually practising surgery or midwifery at the time of the passing of this act; but that every such person may continue to practise surgery or midwifery respectively, so far as any such person lawfully might have done if this act had not been passed.

We readily comply with the request of an anonymous correspondent, to reprint the Regulations at present followed by the University of Edinburgh, in conferring degrees in medicine, as they have undergone material changes since we formerly assisted to give them publicity. (Edin. Med. and Surg. Journ. Vol. I. p. 391.) We have also subjoined a copy of the Sponsio Academica, signed by each candidate on receiving his degree, as we have frequently been applied to for copies of it under a very erroneous notion of its import.

Q. F. F. Q. S. Statuta Solennia de Doctoratus in Medicina Gradu in Academia Edinburgena Capessendo, a Facultate Medica proposita, et in posterum, jubente Senatu Academico, observanda.

I. Nemo ad DOCTORATUS in MEDICINA GRADUM promoveatur, nisi Die Solenni, nempè primo mensis Augusti, vel die proximè se-

quente; nec prius quàm ipse annum ætatis suæ unum et vigesimum compleverit.

II. Nemo Candidatorum numero adscribatur priusquam TRIENNIUM, saltem per sex menses quotannis, in hâc aut aliâ academiâ, medicinæ studio impenderit, et omnibus quas scientia medica complectitur disciplinis, scilicet, ANATOMIÆ et CHIRURGIÆ,—CHEMIÆ,—BOTANICÆ,—MATERIÆ MEDICÆ et PHARMACEUTICÆ,—MEDICINÆ THEORETICÆ,—MEDICINÆ PRACTICÆ,—PRÆLECTIONIBUSQUE CLINICIS, sub medicinæ professoribus habitis, operam dederit.

III. Quicunque honores medicinæ ambierit, ante diem XXIVtum Martii, consilium suum cum Facultatis Medicæ Decano communicet, et illi tradat DISSERTATIONEM MEDICAM INAUGURALEM, à seipso compositam, ut Professor aliquis, a Decano designandus, eam perlegat, si opus fuerit emendet, et perlectæ scriptam suam testificationem apponat. Cum dissertatione, tradat etiam medicinæ studiosus Decano Facultatis, studiorum testimonium in hâc aut in aliâ academiâ; atque autographum his verbis; 'Ego ———— gradum 'Doctoratûs in Medicinâ ambiens seriò et sanctè Medicinæ Professoribus et Almæ Academiæ Edinburgenæ assevero, et hoc scripto 'meo testatum cupio, me unum et vigesimum ætatis annum jam 'complevisse, (vel, si ita res se habuerit, ante diem solennem esse 'completurum), et esse liberum hominem, scilicet nullius chirurgi, 'aut pharmacopolæ, aut alius cujusvis artificii magistri servitio ad'dictum, ut discipulum, vel tironem, vel ministrum; qualis Anglicè 'dicitur *Apprentice.*'

IV. Postea quæstio à Facultate Medicâ, vel vivâ voce, vel scripto, privatim habenda est, de variis qua scientia medica complectitur disciplinis; ut nemo nisi literarum et medicinæ scientiâ probè imbutus, candidatorum numero adscribatur.

V. Die XXIVto mensis Junii, candidatus, coram Facultate Medicâ, a duobus professoribus interrogatus, progressum suum in VARIIS DISCIPLINIS MEDICIS, suprà enumeratis, ulteriùs ostendat.

VI. Candidato hactenus probato proponatur, ab aliquo professorum, unus ex APHORISMIS HIPPOCRATIS; et simul, ab alio professore, QUÆSTIO MEDICA; quorum priorum à seipso explicatum et commentario illustratum; posteriorem, unà cum responsione idoneis argumentis confirmatâ, die IVto mensis Julii, professoribus proponentibus candidatus reddat; suumque demum commentarium et responsionem, die VIto mensis Julii, coram Facultate Medicâ defendat.

VII. Si, his ritè peractis, candidatus, promoveri merebitur, illi tradantur, DUÆ MORBORUM HISTORIÆ, cum QUÆSTIONIBUS SUBJUNCTIS, ut, scripturâ, illas illustret, his commoda responsa reddat; tum historias ita illustratas, unà cum responsis suis, die XIXno Julii professoribus proponentibus tradat, atque eadem, die XXIIdo Julii coram Facultate Medicâ defendat.

VIII. Candidato, si, post primum periculum factum, probatus fuerit, dissertationem suam inauguralem prelo subjicere liceat, cujus accuratè excusæ octo exemplaria, Facultatis Medicæ Decano, die XXII^{do} Julii, tradat.

IX. Si candidatus, dissertatione jam excusâ, tertiò a Medicinæ Facultate fuerit probatus, ejusdem Facultatis Decanus omnia quæ gesta fuerint SENATUI ACADEMICO renunciabit; cujus approbatione et auctoritate candidatus dissertationem suam edere, eandemque in comitiis academicis die anteà statuto, nempè I^{mo} Augusti, defendere jubeatur: Tum, si senatui placuerit, laboris tandem et studiorum præmium, summos in medicinâ honores, GRADUM nempè DOCTORALEM, more solenni, consequatur.

X. Facultas Medica, quo major sit horum omnium solennitas, semper intra academiæ Pomœria, horâ nonâ ante meridiem, diebus supradictis, conveniet. Et si quis candidatus, sine gravi causâ, horâ abfuerit statutâ, occasione neglectâ, ei, hâc vice, vel ad ulteriora pericula progredi, vel gradum doctoralem assequi, non licebit.

XI. Exercitationes omnes anteadictæ, linguâ Latinâ peragendæ sunt.

Sponsio Academica, administered to Candidates on receiving the degree of M. D.

Ego A—— B——. Doctoratus in arte medica titulo jam donandus, sancto coram Deo, cordium scrutatore, spondeo, me in omni grati animi officiis erga Academiam Edinburgenam ad extremum vitae habitum perseveraturum: Tum porro artem medicam cautè, castè, et probè exercitaturum, et, quoad, potero, omnia ad aegrotorum corporum salutem conducentia, cum fide procuraturum, quæ denique inter medendum visa vel audita sileri conveniat, non, sine gravi causa vulgaturum. Ita praesens spondenti adsit Numen.

A promise to the same effect is signed by candidates belonging to the Society of Friends, whose religious principles do not permit them to take an oath.

⁂ Communications have been received from Drs Von EMBDEN, H. DEWAR, W. GIBNEY, M. HALL, R. MOULSON, and K. MACLEAY; Messrs NEWMAN and COMRIE:—and Publications for Review by Professors BRUGNATELLI, NOCCA, FANZAGO, and MARZARI; Drs BODEI, GRIFFITH, and MALE; Messrs ROOTSEY, HOWSHIP, and HUTCHISON.

⁂ Communications may be addressed to the Editors, to the care of Messrs CONSTABLE & Co. Edinburgh; Messrs LONGMAN, HURST, REES, ORME, & BROWN, London; and JOHN CUMMING, Dublin. And we have to request our Continental friends to send any thing larger than a *single* letter to the care of Messrs PERTHES and BESSER, Booksellers, Hamburgh, as the expense of sending journals and packets by the post to this country is enormous.

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PART I.

ORIGINAL COMMUNICATIONS.

I.

Critical Review of the State of Medicine during the last Ten Years.

(Concluded from No. 49. p. 34.)

IV. *Materia Medica.*

The theory of the action of medicines was, during this period, still partly treated of according to the doctrine of excitement, as by *W. H. G. Remer*, (*a*) *E. Horn*, (*b*) and *F. Wurzer*. (*c*) The Italians added to the principles of the Brunonian school their contro-stimuli, under which they include all directly debilitating powers,—a doctrine which may, indeed, be defended, from the consideration, that all external agents rather restrain the organic powers than excite them to reaction. If, however, the restraining action continue, and no excitement follow, the process is undoubtedly that of depression. The prussic acid, digitalis, and various other substances, act in this way. But it is no less certain that this doctrine is carried to excess, and misapplied by *P. Rasori* and *Borda*, by including among the contro-stimuli all metallic medicines except iron. To this was added a crude empiricism, which led the supporters of this school to give, often arbitrarily, such remedies as they maintained were sedative in those diseases which they considered as sthenic. (*d*)

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a) Handbuch der Heilmittellehre. Braunschw. 1805. 8.

b) Handbuch der pratischen Arzneymittellehre. 2te Aufl. Berl. 1805. 8.

c) Grundriss der Arzneymittellehre. Leipz. 1808. 8.

d) *Bondioli* sulle forme particolari delle malattie universali, in the Memorie della soc. ital. Vol. XII.

Rasori in the Annali di scienze e lettere, Vol. II. p. 189. Vol. III. p. 104. 275.

Rasori prospetto de' resultati della clinica medica nello Spedale di S. Ambrogio. Milano, 1808.

In Germany, also, the division of stimuli into positive and negative, met with assent. Not only *E. Horn* adopted it as a principle, but also *G. A. Bertele*, (*a*) who classed as positive stimuli those which contained carbon and hydrogen, and as the negative those which furnished oxygen, directly or indirectly, among which he included, arbitrarily enough, the evacuants. The work of *K. F. Burdach* (*b*) was equally fanciful; and he, moreover, subjected the remedies containing azote to a perfectly arbitrary hypothesis. *J. A. Schmidt's* posthumous work (*c*) was written in the same spirit. His dynamic views are founded on hypothetical relations of the elements; and only in a few places can it be remarked, that experience triumphs over them against the will of the author. In striking contrast with these hasty attempts is *S. Hahnemann's* work, so rich in indexes, (*d*) which *J. A. Neurohr* (*e*) also seems to have followed as a model. *C. H. Pfaff* (*f*) treated the materia medica in a classical work, according to their predominant immediate principles. *C. H. Mynster*, (*g*) and *J. J. Bernhardi*, and *C. F. Bucholz*, the latest editors of *Gren's* pharmacology, proceeded upon similar principles. A purely practical and very useful work, in alphabetical order, was published by *Fr. Jahn*; (*h*) but the manual of *J. Staudt*, (*i*) although also practical, was less commendable. Among the foreign manuals, we know by name only those of *C. Alibert*, (*k*) *J. Murray*, (*l*) and *J. de Matheis*. (*m*)

As many very active drugs had become much scarcer and dearer, in consequence of the obstruction to commerce, the proposal of substitutes for these became very frequent. Even governments, such as the Austrian, proposed considerable prizes for the discovery of a perfect substitute for cinchona. Among fifty-two answers sent in, the first prize was conferred upon the treatise of *K. H. Sander*, (*n*) who recommended the Yellow Lichen parietinus, and the second to *Dr Zsoldos* at Paxa in

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a) Handbuch einer dynamischen Arzneymittellehre. Landsh. 1805. 8.

b) System der Arzneymittellehre. B. 1—3. Leipz. 1807—1809.

c) Lehrbuch der Materia Medica. Wien, 1811. 8.

d) Fragmenta de viribus medicamentorum positivis. P. 1. 2. Lips. 1805. 8.

e) Versuch einer einfachen und praktischen Arzneymittellehre. Zweyte Aufl. Heidelb. 1811. 8.

f) System der Materia Medica. Th. 1—3. Leipz. 1808. 1814. 8.

g) Pharmakologie B. 1. Kopenh. 1810. 8.

h) Auswahl der wirksamsten Arzneymittel. Neue Aufl. B. 1, 2. Erf. 1807. 8.

i) Praktische Heilmittellehre. Th. 1, 2. Wien, 1809, 1810. 8.

k) Nouveaux élémens de therapeutique et de mat. médicale. Paris, 1808.

l) System of Materia Medica and Pharmacy, Vol. I. II. Edinb. 1814. 8.

m) Analisi della virtù de' medicamenti. Rom. 1810.

n) Salzb. med. Zeit. 1813. B. 3. S. 288.

Hungary, who recommended the bark of the Rhus cotinus. (*a*) In 1805, *Hufeland* (*b*) gave encouragement to the employment of the known, and to the discovery of new, substitutes for cinchona; but, at a later period, (*c*) he assented, with propriety, to the opinion of an anonymous author, who altogether rejected the substitutes. *S. Hahnemann* (*d*) expressed nearly the same opinion. On the contrary, another anonymous author (*e*) admitted much too easily the substitution of the cheaper native remedies for the foreign. In opposition to which, it is only necessary to quote the severe satire of an anonymous writer. (*f*) *P. J. Piderit* (*g*) examined the subject seriously and thoroughly; and a similar work by *J. S. Frank* (*h*) also deserves honourable mention. Besides the substitutes for cinchona proposed, in consequence of the Vienna prize-question, a great many native aromatic and bitter plants (*i*) were recommended by *J. C. Renard*; others of the same kind (*k*) by *F. W. Heller*; the common chamomile (*l*) by *P. J. Piderit*; the bark of the sloethorn (*m*) by *Juch*; and even the alburnum of the pine (*n*) by *Berzelius*; lastly, spider's-web by several German, Swedish, and English physicians; which led *Autenrieth* and *Rauschenbusch*, (*o*) almost ironically, to maintain, that powdered wood of any kind cured ague. Among the foreign substitutes for cinchona, the greatest notice was taken of coffee, and especially of the extract prepared from it unroasted, as directed by *Grindel*; (*p*) and testimonies in favour of it were given by *Paldamus*, (*q*) *Neumann*, (*r*) and *Weber*. (*s*) Strong coffee, as usually prepared, was also recom-

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(*a*) Salzb. med. Zeit. 1813. B. 3. S. 288.

(*b*) *Hufeland's* Journ. B. 21. St. 3.

(*c*) *Hufeland's* Journ. B. 34. St. 1.

(*d*) *Hufeland's* Journ. B. 23. St. 4.

(*e*) Der Medicinische Stellvertreter. Gotha, 1809. 8.

(*f*) Rüben und Kartoffeln als Surrogate der Rehbraten. Teltow, 1808. 8.

(*g*) Versuch einer Darstellung der ausländischen Arzneymittel. in Rücksicht ihrer Ent-oder Unentbehrlichkeit. Cassel, 1810. 8.

(*h*) Surrogate für mehrere ausländische Arzneymittel. Wien, 1809. 8.

(*i*) Die inländischen Surrogate der Chinarinde. Mainz, 1809. 8.

(*k*) *Hufeland's* Journ. B. 27. St. 4.

(*l*) Ueber inländische Surrogate für die Chinarinde. Göttingen, 1807. 8.

(*m*) Salzb. med. Zeit. 1808. B. 3. S. 447.

(*n*) *Hufeland's* Journ. B. 33. St. 1.

(*o*) Diss. de manifestis in organismo mutationibus, usu Chinae, quercus et tormentillae productis. Tubing. 1809. 4.

(*p*) China-Surrogat. Leipz. 1809. 8.

(*q*) *Horn's* Archiv, 1809, B. 3. Heft. 2.

(*r*) *Horn's* Archiv, 1811. May.

(*s*) *Horn's* Archiv, 1812. May.

mended by *W. Zambelli* (*a*) and *Labonnardiere.* (*b*) The rind of the pomegranate was recommended by *J. Rehmann;* (*c*) and *Hildenbrandt* (*d*) praised the bark of the tulip tree. Animal gelatine, formerly recommended by *Gautieri*, was again praised by *W. Remer*, (*e*) who gave it in conjunction with charcoal made from the wood of the lime tree. An anonymous writer (*f*) subjected the history of its exhibition to a careful investigation. *Bremer's* (*g*) recommendation of the bark of the Prunus padus attracted much attention, and acquired the assent of several practical physicians. Lastly, the rhatany root (probably got from the cinchona cordifolia of Vahl) was praised in England. (*h*)

Our knowledge of the natural history of cinchona was much elucidated by the information which *F. A. Zea* (*i*) gave of the inquiries of the venerable *Mutis*, and especially by *Humboldt's* remarks. (*k*)

Like the cinchona, *opium* is a foreign vegetable product, for which a substitute can scarcely be found. Indeed *Loiseleur-Deslongchamps* (*l*) was of opinion that as good opium could be got from the poppy in this country as that of the East; and *Walberg* (*m*) made experiments on the manufacture of opium on the Lichtenstein estates, which are said to have succeeded. But the want of the almost tropical sun of Egypt, and other circumstances, render the goodness of the home made opium doubtful. The extract of the Lactuca virosa was recommended as an antispasmodic by *H. M. Schlesinger;* (*n*) but this substance could not be a substitute for opium, any more than the Datura stramonium, which was again recommended by *Harles* (*o*) in hydrophobia, and by the English lately against asthma. (*p*) We also received evidence in favour of the efficacy of the Sola-

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a) Diatribe de vi febrifuga fabae arabicae sive cofeae. Vienn. 1811. 8.

b) Journ. de Sedillot, Tom. XXXIV. Mars.

c) Notice sur un remède propre à remplacer le quinquina. Moscav. 1809. 8.

d) Salzb. med. Zeit. 1809. B. 1. S. 342.

e) *Hufeland's* Journ. B. 25. St. 3.

f) Neues Journ. der Erf. St. 18, 19.

g) *Horn's* Archiv, 1812. Jan.

h) *R. Reece* practical treatise on the radix Rhataniae. Lond. 1808. 8.

i) *Trommsdorf's* Journ. der pharmac. B. 14. St. 2.

k) Plantes equinoxial. Livr. 3.

l) Journ. de Sedillot, Tom. XL. Janv.

m) Salzb. med. Zeit. 1811. B. 2. S. 78.

n) *Hufeland's* Journ. B. 25. St. 1.

o) Ueber die Behandlung der Hundswuth. Frankf. am Main. 1809. 4.

p) *Hufeland's* Journ. B. 36. St. 2.

num Carolinense in tetanus, in the tropical districts of America. (*a*) *Fraser* praised the common misletoe as an antispasmodic in epilepsy. (*b*)

Burns (*c*) praised the efficacy of foxglove in preventing abortion; and *Heusinger* (*d*) tried it in general.

Bourne (*e*) recommended the leaves of the Arbutus uva ursi, formerly known as a remedy in nephritic symptoms, against consumption, when combined with opium. *A. Metternich (f)* again confirmed the efficacy of the Rhododendron chrysanthum in arthritis. A decoction of the viola tricolor was recommended in syphilis by *J. H. G. Schlegel.* (*g*) Against this, also, a composition of vegetable substances was announced with great pomp by *F. J. Besnard.* (*h*) It consisted of opium, gum arabic, potass, and tincture of cinnamon, and was found by *C. W. Hufeland* (*i*) and *E. Horn* (*k*) to be insufficient.

Vinegar was lately recommended in typhus by *Parrot*; (*l*) and *Flemming* praised the use of camphor in amaurosis. (*m*)

Of mineral substances, graphite or plumbago was recommended as an admirable remedy, externally and internally, against cutaneous diseases, by *K. A. Weinhold*; (*n*) and *Huber* triturated it with quicksilver to an aethiops; (*o*) and the fetid oil of coal was cried up empirically by *J. G. Lucas.* (*p*)

E. Löbenstein-Löbel (*q*) made some interesting observations on phosphorus; and phosphoric acid was praised by *Lützelberger* (*r*) in asthenic hæmorrhagies. *Tommasini*, *Ontyd*, and others, (*s*)

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a) Coup d'oeil sur les différens modes de traiter le tétanos en Amérique, par *L. Valentin.* Paris, 1811.

b) Essay on Epilepsy. Lond. 1800. 8.

c) Essay on Abortion. Lond. 1806. 8.

d) *Horn's* Archiv, 1811. Sept.

e) Cases of pulmonary consumption, treated by Uva ursi. Lond. 1806. 8.

f) Ueber die gute Wirkung der sibirischen Schneerose in der Gichtkrankheit. Maynz. 1810. 8.

g) Materialien für die Staatsarzneyw. und prakt. Heilk. Samml. 3.

h) Ernsthafte, auf Erfahrung gegründete Warnungen an die Freunde der Menscheit gegen den Gebrauch des Quecksilbers in verschiedenen Krankheiten. München, 1808, 1811. 8.

i) *Hufeland's* Journ. B. 36. St. 1.

k) *Horn's* Archiv, 1812. Nov.

l) *Hufeland's* Journ. B. 36. St. 5. B. 37. St. 1.

m) *Hufeland's* Journ. B. 32. St. 1.

n) Der Graphit als neuentdecktes Heilmittel gegen die Flechten. Leipz. 1809. 8.

o) Salzb. med. Zeit. 1811. B. 3. S. 282.

p) Ueber das Braunkohlenöl. Halle, 1808. 8.

q) *Horn's* Archiv, 1810. May.

r) *Hufeland's* Journ. B. 26. St. 1.

s) *Harles's* Journ. der ausl. Lit. B. 9. St. 2. B. 10. St. 1.

found the oxymuriatic acid, formerly so praised in the cure of the venereal disease, insufficient. The operation of acids, in general, on the human body, was well stated by *H. G. Wüstney*. (*a*) Carbonate of potass was recommended in diseases of the urinary organs by *Mascagni*; (*b*) and caustic ley by *Elser* (*c*) in hydrophobia; frictions of ammonia, with eau de Cologne, by *C. F. Harles* (*d*) in dropsies. *J. A. Albers* (*e*) made more precise trials of the sulphuret of potass, recommended by *Chaussier* and others as a specific in croup, and ascertained the cases for its use.

G. L. K. Kapp published, on the metals in general, a very superfluous book. (*f*) *C. W. Hufeland* praised anew the combinations of the metals with ether; and *A. Henke* (*g*) the mercurial ether especially.

No metal, used in medicine, attracted so much attention during this period as arsenic, concerning the mode of action of which, in general, we have already quoted *Jägers's* observations. The remarks of *Benj. Barton* in America, of *Pearson* in England, of *Brera* in Italy, and of *Foderé* and *Desgranges* in France, on the efficacy of arsenic combined with potass or soda in intermittent fever, (*h*) gave occasion to *Harles* (*i*) to recommend strongly, both on the authority of these and of his own observations, the combination of arsenic with soda, not only in intermittent fevers, but also in other chronic and obstinate diseases. From personal experience, this praise was acceded to by *E. L. Heim*, (*k*) *Rehfeld*, (*l*) *Schnaubert*, (*m*) *Hildebrandt*, (*n*) *Nasse*, (*o*) *Hofmann*, (*p*) *Remer*, (*q*) and others. But there were not wanting contrary observations, of the unsuccessful or even

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a) Die wohlthätigen Wirkungen der Säuren bey innerlichen und äusserlichen Krankheiten. Rostock, 1806. 8.

b) Memor. della soc. ital. Vol. XII. *Gehlen's* Journ. B. 2. S. 269.

c) Salzb. med. Zeit. 1812. B. 3. S. 26.

d) Jahrb. der teutschen Med. B. 3. Heft. 2.

e) Salzb. med. Zeit. 1812. B. 2. S. 133. f. Journ. de Sedillot, Tom. XLVI. Févr. Biblioth. médic. Tom. XXXIX. Mars.

f) Lehrbuch der praktischen Arzneymittellehre. Nurnb. 1813. 8.

g) *Hufeland's* Journ. B. 29. St. 1.

h) *Harles's* Journ. der ausl. Liter. B. 8. St. 2. B. 9. St. 1.

i) Abhandl. der phys. med. Soc. in Erlangen, B. 1. n. 9. *Harles*, de arsenici usu in medicina. Norib. 1811. 8.

k) Der Arsenik als Fiebermittel. Berl. 1811. 8. *Horn's* Archiv, 1810. Nov.

l) *Horn's* Arch. 1810. Sept.

m) *Horn's* Archiv, 1811. Jan.

n) *Horn's* Archiv, 1811. Sept.

o) *Harles's* Jahrb. B. 1. S. 148.

p) Abh. der phys. medic. Societ. zu Erlang. B. 2. n. 14.

q) *Horn's* Archiv, 1812. Jan. recommended in syphilis.

injurious effects of arsenic taken internally, as mentioned by the Swedish physicians, (*a*) *C. W. Hufeland*, (*b*) *Thiebault*, (*c*) *Recke*, (*d*) *Ebers*, (*e*) and others. Hence *K. L. Donner (f)* and *C. W. Hufeland* (*g*) entirely rejected arsenic; and the Prussian government thought it necessary to prescribe a determined formula, and the necessary precautions for its employment. Meanwhile, the advantages of the external use of arsenic against cancer of the face were confirmed by *J. A. von den Steinen* and an anonymous observer. (*h*)

P. F. Walther (*i*) and *G. Zeviani* (*k*) investigated the effects of mercury in amaurosis and hydrophobia; and calomel was not superseded by any other internal remedy for the cure of croup. (*l*)

The efficacy of sugar of lead in asthenic hæmorrhagies, from ulcers in the lungs especially, in combination with opium, was confirmed by *Amelung*, (*m*) *J. H. Kopp*, (*n*) *A. Osann*, (*o*) *Gistrén*, (*p*) the physicians of Philadelphia, (*q*) and by *Wolf*. (*r*)

The external application of tartar emetic, in the form of a salve, for exciting inflammation and an eruption in the skin, was first recommended by *J. F. Authenrieth* (*s*) against the chincough; but, that it was not an infallible, though often a very efficient remedy, was proved by the observations of *Schneider*, (*t*) *Kelch*, (*u*) *Nolde*, (*x*) and *Horst*. (*y*)

Sulphate of iron was praised by *Marc* and some other

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a) *Hufeland's* Journ. B. 33. St. 1.

b) *Hufeland's* Journ. B. 34. St. 5.

c) Journ. de *Sedillot*, Tom. XXXII. May.

d) *Kausch* Memorabilien der Heilkunde, B. 1.

e) *Hufeland's* Journ. B. 37. St. 3, 4.

f) Abh. über die höscht verderblichen Folgen des innern Gebrauchs des Arseniks im Wechselfieber. Berl. 1812. 8.

g) *Hufeland's* Journ. B. 32. St. 1.

h) *Siebold's* Samml. chirurg. Beob. B. 3. N. 11, 28.

i) Abhandl. aus dem Gebiete der pract. Med. B. 1. Landshut, 1810. 8.

k) Memor. della soc. ital. Vol. X. *Harles's* Journ. der Ausl. Lit. B. 9. St. 1.

l) *Sachse* in *Hufeland's* Journ. B. 31. St. 1.

m) *Hufeland's* Journ. B. 22. St. 1.

n) *Hufeland's* Journ. B. 29. St. 5.

o) Diss. sistens saturni usum med. internum. Jen. 1809.

p) *Hufeland's* Journ. B. 33. St. 1. S. 144.

q) *Harles's* Journ. der Ausl. Lit. B 10. St. 1.

r) *Hufeland's* Journ. B. 34. St. 4.

s) Versuche für die prakt. Heilk. Th. 1.

t) *Horn's* Archiv, 1808. B. 4. Heft. 2.

u) *Hufeland's* Journ. B. 28. St. 4.

x) *Hufeland's* Journ. B. 33. St. 4.

y) *Hufeland's* Journ. B. 36. St. 2.

French physicians (*a*) in intermittent fever, and by *C. Stanger* (*b*) against consumptive coughs. *Rich. Carmichael* (*c*) recommended the carbonate of iron in cancer; and *E. Horn* (*d*) praised the effects of iron in the mercurial disease.

The nitrate of silver was recommended anew by *Fauchier* (*e*) in epilepsy, and by *R. Powel* (*f*) in other convulsive diseases.

Lastly, gold itself was again tried, especially the muriate, which *Odhelius* (*g*) praised, in doses of the quarter of a grain, given three times a day or oftener, in the most obstinate venereal cases.

The use of the external application of cold water in the cure of febrile diseases, which *J. Currie* particularly recommended, (*h*) was confirmed by *J. Stock*, (*i*) and *R. Jackson*. (*k*) It was found very useful in trismus by *W. Dalrymple*; (*l*) in scarlet fever by *J. Reid*, (*m*) *Paul Kolbany*, (*n*) *Nasse*, (*o*) *Reich*, and others; and in intermittent fever by *Giannini*. (*p*) It was particularly recommended in typhus by *Hirsch*, (*q*) *Kolbany*, (*r*) *E. Horn*, (Archiv. 1811. May), and most writers on the late camp-fever. An able review of this subject was given by *A. F. Hecker* (Annalen, B. 1. S. 48. f.)

C. Taylor (*s*) wrote on the use of sea-water externally and internally, and *S. Vogel* published the new Annals of the Sea-

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a) Journ. de *Sedillot*, Tom. XXXIX. Sept.

b) Medic. chir. Abh. der med. chir. Gesellsch. zu London, übers. v. Osann, n. 2.

c) Essay on the effects of carbonate of iron upon cancer. Dubl. 1806. 8.

d) Archiv, 1812. Jan.

e) Annal. de la soc. de médic. prat. de Montpellier, Tom. VII. 1806. Juin.

f) Medic. transact. publ. by a soc. of phys. at London. Vol. IV.

g) Suensk Acad. Handl. 1813. P. II. p. 265.

h) Fernere Nachrichten von der glücklichen Anwendung des kalten Bades in adynamischen Fiebern, translated by *F. H. Hegewisch.* Leipz. 1807. 8.

i) Medical collections of cold water as a remedy in certain diseases. Lond. 1805. 8.

k) Exposition of the practice of affusing cold water on the surface of the body. Edinb. 1808. 8.

l) Edinb. Med. and Surg. Journ. 1805. n. 3.

m) Med. and Phys. Journ. Vol. IX.

n) Beobachtungen über den Nutzen des lauen und kalten Waschens im Scharlachfieber, und fernere Nachrichten von der glücklichen Anwendung desselben, Presb. 1808. 8.—Abhandl. der phys. med. soc. zu. Erl. B. 1.

o) *Hufeland's* Journ. B. 33. St. 4.

p) *Harles's* Journ. der ausländ. Liter. B. 10. St. 1.

q) *Horn's* Archiv, 1808. B. 4. St. 1.

r) Bemerkungen über den ansteckenden Typhus, Presb. 1811. 8.

s) Remarks on sea-water. Lond. 1805. 8.

baths at Dobberan. (*a*) *Tolberg* praised the effects of the brine-bath (Soolbade). (*b*)

Directions for the use of mineral waters and baths in general were given by *J. C. Meyer*, (*c*) *F. Speyer*, (*d*) and *K. A. Zwierlein.* (*e*) *Waitz* described the subsequent effects of cures by these means. (*f*) And *C. W. Hufeland* examined the principal medicinal springs of Germany in an excellent dissertation (Journ. B. 27. St. 1. f.) Some of the best descriptions and directions for the use of the German mineral waters, are those mentioned in the subjoined note. (*g*) Those of France were described by *B. Peyrilhe*; (*h*) and one in the Russian government Twer by *J. H. Zech.* (*i*)

The application of galvanism as a powerful stimulant in suspended animation, was recommended anew by *Struve.* (*k*) *G. H.*

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a) Neue Annalen des Seebades zu Dobberan. Heft. 1—7. Rostock, 1804—1810. 8.

b) *Hufeland's* Journ. B. 26. St. 3.

c) Der Rathgeber vor, bey und nach dem Bade. Pirna, 1805. 12.

d) Ideen über die Natur und Anwendungsart natürlicher und künstlicher Bäder. Jena, 1805. 8.

e) Vorzüge der Curen in Bädern bey langwierigen Krankheiten. Gotha, 1811. 8.

f) *Hufeland's* Journ. B. 24. St. 4.

g) *Reumont's* analyse des eaux sulfureuses d'Aix la Chapelle, 1810. 8.; *Altwasser* und seine Heilquellen, beschrieben von *A. H. Hinze.* Bresl. 1805. 8. *A. H. Hinze* Annalen der mineralischen Kuranstalt zu *Altwasser.* J. 1. Bresl. 1810. 8. *Baden*, beschrieben von *A. Schreiber*, 1811. 8. Die Mineralquellen zu *Bilin*, von *F. A. Reuss.* Wien, 1808. 8. Uber die Mineralquellen bey *Bramstadt*, von *C. H. Pfaff.* Altona, 1810. 8.; and on the same by *J. F. Suerssen.* Hamb. 1810. 8. *K. A. Zwierlein's* neueste Nachricht vom Bade *Brückenau.* Fulda, 1811. 8. Uber die Gas-u. Schlammbäder bey den Schwefelquellen zu *Eilsen*, von *J. C. Gebhard*, Berlin, 1811. 8. *K. W. Böckmanns* Beschreibung der Gesundbrunnen und Bäder *Griesbach*, *Petersthal* und *Antopast.* Karlsruhe, 1810. 8. Versuche und Beobachtungen mit dem *Geilnauer* Sauerbrunnen. von *Amburger.* Offenbach, 1809. 8. *Mezler's* neueste Nachricht von *Imnau.* Freyb. 1811. 8. Das *Krumbacher* Heilbad. von *J. E. Wetzler.* Augsb. 1811. 12. *J. F. A. Koch's* Erfahrungen über die Wirkunskräfte des Gesundbrunnens und des Bades zu *Lauchstädt* Leipz. 1806. 8. *H. M. Marcard* über die kochsalzhaltigen Mineralwasser zu *Pyrmont.* Hamb. 1810. 8. *J. A. Albers* über das *Rehburger* Bad in *Horn's* Archiv, 1811. Septemb. *J. Fenners* freymüthige Briefe über *Schwalbach* Frkf. a. M. 1807. 8. Der salinische Eisenquell im *Selkethale* am Harz, von *K. F. Gräfe.* Leipz. 1809. 8. *Fabricius* über den *Selteser* Brunnen in *Hufeland's* Journ. B. 34. St. 3. *F. Wegelers* einige Worte über die Mineralquelle zu *Tönnesstein.* Kobl. 1811. 8. *C. C. Creve's* Beschreibung des Gesundbrunnens zu *Weilbach.* Wiesbaden, 1810. 8. *Fabricius* Manuel du baigneur aux eaux de *Wisbade.* Paris, 1812. 8. *Wipfeld* am Main mit seinen Umgebungen. Nurnb. 1813. 12. *K. G. Heinsse*'s Beschreibung des *Wolkensteiner* Bades. Freyberg, 1808. 8.

h) Tableau historique d'un cours d'histoire naturelle médicale, où l'on a classé les principales eaux minérales de la France. Vol. 1, 2. Paris, 1805.

i) Diss. de aqua Wissokoensi. Dorpat. 1808. 4.

k) *Hufel.* Journ. B. 23. St. 4.

Schubert (*a*) praised it in deafness. *F. B. Osiander* (*b*) proposed small plates of silver and zinc, introduced under the eyelids, as a remedy in amaurosis. *K. A. Wienhold* (*c*) recommended a very ingenious contrivance for the application of galvanism, by which the opposite streams are conducted to the eye by spirit of ants (Ameisengeist) and spirit of earth worms (Regenwurmgeist). *G. A. Mongiardini* and *V. Lando* (*d*) described the effects of galvanism on the production of stone in the bladder. Lately, *P. J. Westring* (*e*) proposed increasing the galvanic power by means of metallic points of gold and silver.

V. *Therapeutics and Practice of Medicine.*

On general therapeutics, a classical text-book was published by *P. J. Horsch*; (*f*) inferior to which are the works of *J. A. Schmidt*, (*g*) *F. L. Augustin*, (*h*) *C. Schöne*, (*i*) *K. G. Naumann*, (*k*) and even the abridgement of *A. F. Hecker*. (*l*) However, the new edition of the last author's Manual (*m*) maintained its former reputation.

S. Hahnemann advanced a new maxim in therapeutics, derived from the principle, in itself true, that the medicinal stimulant often annuls the morbid one, which he extended to the revulsive effects of medicines; and, at the same time, established, that each distinct disease requires a corresponding remedy, capable of producing a similar action. This idea, which, thus extended, becomes absolutely false, and leads to gross empiricism, he denominated the *homöopathic* therapia. (*n*) *A. F. Hecker's* (*o*) objections to this doctrine were answered in an unbecoming manner by *F. Hahnemann*. (*p*)

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a) Von der Anwendung des Galvanismus bey Taubgebornen. Leipz. 1805. 8.

b) Abhandl. der phys. med. Soc. zu Erlangen. B. 1. N. 8.

c) Ueber die Heilung eines zerstörten Auges und eine neue Anwendungsart des Galvanismus. Meissen, 1813. 8.

d) Mem. della soc. med. di emulaz. di Genua, Tom. 2. quadrim. 2. *Harles's* Journ. der ausl. Liter. B. 8. St. 2.

e) Suensk. acad. handl. 1813. P. II. p. 18.

f) Handb. der allegemeinen Therapie. Wurzb. 1811. 8.

g) Prolegomena zu der allgemeinen Therapie und Materia Medica. Wien, 1812. 8.

h) Handb. der medic. Therapie. Th. 1. Berl. 1806. 8.

i) Versuch eines systematischen Entwurfes der gesammten Medicin. Th. 1. Generelle Therapie. Berl. 1806. 8.

k) Allgem. Therapie. Leipz. 1808. 8.

l) Kurzer Abriss der Therapie. Berl. 1807. 8.

m) Therapia generalis, oder Handbuch der allgemeinen Heilkunde. Neue Ausgabe. Erf. 1805. 8.

n) *Hufeland's* Journ. B. 26. St. 2.—Organon der rationellen Heilkunde. Dresden, 1810. 8.

o) Annalen 1811. Jul.—Sept.

p) Widerlegung der Anfälle *Hecker's* auf das Organon der rationellen Heilkunde, Dresd. 1811. 8.

Of practical compendiums, *J. P. Frank's* is the best; (*a*) the two volumes last published, contain the profluviæ, dropsies, and retention of urine. The second volume of *C. W. Hufeland's* system was published. (*b*) That of *A. H. Hecker* (*c*) is also a valuable text-book. Far less commendable are the productions of *E. Horn*, (*d*) *Jos. Frank*, (*e*) and of *C. E. Raschig*. (*f*) Those of *C. F. Oberreich*, (*g*) and an anonymous author, (*h*) are founded on the theory of excitement. *F. W. v. Hoven's* Manual (*i*) and his Treatise on Fevers (*k*) follow the maxims of empiricism.

Among the numerous collections of practical observations, those made in clinical schools must be first noticed. *J. V. v. Hildenbrand* explained the general principles of clinical practice excellently. (*l*) His observations, (*m*) and those of *C. W. Hufeland*, (*n*) *J. C. A. Clarus*, (*o*) *V. L. Brera*, (*p*) *Baume*, (*q*) *E. J. Thomassen a Thuessink*, (*r*) *J. N. Thomann*, (*s*) *P J. Horsch*, (*t*) *J. Frank*, (*u*) and *F. Wendt*, (*v*) are the best productions of this kind.

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a) De curandis hominum morbis epitome lib. 5. P. 2. lib. 6. P. 1. Mannh. 1807. Tubing. 1811. 8.

b) System der praktischen Heilkunde der zweyte Band. Jena, 1805. 8.

c) Kunst die Krankheiten der Menschen zu heilen. 4te Aufl. Th. 1—3. Erf. 1812, 1813. 8.

d) Anfangsgründe der medicinsichen Klinik. B. 1. Erf. 1807. 8.

e) Praxeos medicae universae praecepta. Vol. I. Lips. 1811. 8.

f) Handbuch einer innern praktischen Heilkunde. Heft. 1—3. Leipz. 1808, 1810. 8.

g) Handbuch der Heilkunst. Th. 1—3. Riga, 1805, 1806. 8.

h) Versuch eines nach Grundsätzen der Erregungstheorie abgefassten medicinisch-praktischen Leitfadens bey Heilung einiger Krankheitsformen. Th. 1, 2. Leipz. 1806, 1807. 8.

i) Handbuch der praktischen Heilkunde, B. 1, 2. Heilbronn, 1805. 8.

k) Versuch einer prakt. Fieberlehre. Nurnb. 1810. 8.

l) Initia Institutionum Clinicarum. Vienn. 1807. 8.

m) Ratio medendi in schola practica Vindobonensi. P. 1, 2. Vienn. 1809, 1813. 8.

n) Jahresberichte der polyklinischen Anstalt bey der Universität zu Berlin, 1811. f.

o) Annalen des klinischen Instituts in Leipz. 1810—1812.

p) Annotazioni medico-pratiche sulle malatte trattate nella Clinica medica di Pavia. Vol. I. II. Crema 1806. 4. Rapporto di resultati ottenuti nella clinica medica di Padova. ann. 1.—3, Padov. 1810, 1811. 4.

q) Annales cliniques de Montpellier, 1810. 8.

r) Waarnemingen omtrent de zeikten, welke in het Nosocomium clinicum van de hooge school te Groeningen zyn behandeld. Groening. 1805. 8.

s) Annalen der klinischen Anstalt zu Wurzburg. Arnstadt, 1805. 8.

t) Annalen der klinisch-technischen Schule. Rudolstadt. 1809. 8.

u) Acta instituti clinici universitatis Vilnensis. ann. 1. Leips. 1808—1812. 8.

v) Annalen des klinischen Instituts zu Erlangen. Heft. 1. 2. Erlang. 1808, 1809. 8.

On the diseases of females, excellent works were published by *E. v. Siebold,* (*a*) *J. C. G. Jörg,* (*b*) and *J. Hamilton.* (*c*) Tha[illegible] of *L. J. C. Mende* (*d*) is less commendable.

On the diseases of children, the work of *F. Jahn* (*e*) was most approved; those of *J. J. v. Plenk,* (*f*) *K. B. Fleisch,* (*g*) and *A. Henke* (*h*) less, and that of *G. W. Becker* least of all. (*i*) *H. X. Boer's* publication (*k*) is an excellent introduction to the diseases of childhood.

VI. *Surgery.*

K. Sprengel wrote the history of surgical operations; (*l*) and an anonymous author commenced a history of surgery during the last ten years. (*m*) Different views were taken of the relation of surgery to medicine. The opinions of *J. A. Walther,* (*n*) who saw no mutual high connexion of medicine and surgery; and, because the surgeon might dispense with the knowledge of the organization, would not allow the latter to be called even an art, but considered as being merely mechanical, were easily refuted. With more propriety *J. C. Reil* (*o*) limited surgery to the application of mechanical remedies only, and *J. A. Schmidtmuller* (*p*) justly esteemed surgery very highly, as did also *A. F. Hecker.* (*q*)

Several general works on surgery appeared. The third edition of *B. Bell's* system (*r*) maintained its acknowledged value. *C. Bell* also published a system. (*s*) *B. Schreger's* principles of

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a) Handb. zur Erkenntniss und Heilung der Frauenzimmer-Krankheiten. Th. 1, 2. Frkf. 1811, 1814. 8.

b) Handbuch der Krankheiten des menslichen Weibes. Leipz. 1809. 8.

c) Treat. of the management of female complaints. Edinb. 1809. 8.

d) Die Krankheiten der Weiber. Th. 1, 2. Leipz. 1810, 1811. 8.

e) Neues System der Kinderkrankheiten. Rudolstadt, 1807. 8.

f) Lehre von der Erkenntniss und Heilung der Kinderkrankheiten. Wien, 1807. 8.

g) Handbuch über die Krankheiten der Kinder, B. 1—4. Leipz. 1805—1808. 8.

h) Handbuch zur Erkenntniss und Heilung der Kinderkrankheiten. Frankf. 1809. 8.

i) Krankheiten der Kinder, ihre Kenntniss und Heilung. Pirna, 1807. 8.

k) Versuch einer Darstellung des kindlichen Organismus. Wien, 1813. 8.

l) Geschichte der wichtigsten chirurgischen Operationen. Halle, 1805. 8.

m) Neuestes Journal der Erf. St. 1.

n) Die Chirurgie in ihrer Trennung von der Medicin. Nurnb. 1806. 8.

o) Beyträge zur Beförderung einer Kurmethode auf psychischem Wege, B. 1, S. 161. f.

p) Beytr. zur Vervollkomnung der Staatsarzneykunde. Landsh. 1806. 8.

q) Wodurch reiste die Chirurgie ihrer gegenwärtigen Vollkommenheit entgegen? Berl. 1806. 8. Welches ist der wahre Zweck medic. chirurg. Lehranstalten? Berl. 1807.

r) Lehrbegriff der Wundarzneykunst. B. 1—7. Leipz. 1804—1810. 8.

s) A system of operative surgery, founded on the base of anatomy. Vol. I. II. Lond. 1808—1811. 8.

surgical operations are systematically arranged. (*a*) But the best work of this sort is *C. B. Zang's.* (*b*) *A. Richerand,* (*c*) *Lassus,* (*d*) *E. Horn,* (*e*) *W. E. Berger,* (*f*) *J. A. Tittmann,* (*g*) and *F. X. v. Rudtorfer,* (*h*) endeavoured to explain the theory of surgical diseases.

The treatment of wounds was so much simplified by *V. Kern,* (*i*) that he recommended universally cold or tepid water, with rest, as the sole dressing, and rejected entirely all cleaning of wounds. *C. B. Zang* criticised admirably this mode of treatment. (*k*) *A. F. Hecker's* thoughts on it deserve also to be read. (*l*)

The doctrine of bandages was treated by *J. G. Bernstein,* (*m*) and systematically by *B. G. Schreger.* (*n*)

Directions for the application of oil and warmth in the use of cutting-instruments, were given by *B. Faust* and *Ph. Hunold.* (*o*)

Abernethy (*p*) and *Rust* (*q*) wrote on tumours. *F. S. Alexander* published some remarkable observations on such as compress the nerves, to which that described by *Mojon* and *Covercelli* also belongs. (*r*) *H. J. Brüninghausen* (*s*) removed encysted tumours of the neck, by ligature and escharotics, which, from containing a fluid, could not be extirpated.

H. F. Gräfe (*t*) wrote of dilatation of the vessels. *G. F. Harles* derived from its various causes aneurism, which *Scarpa,*

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a) Grundriss der chirurg. Operationen. Fürth. 1806. 8.

b) Darstellung heilkundiger blutiger Operationen. Th. 1. 2. Wien 1814, 8.

c) Nosographie chirurgicale. Tom. I. III. Paris 1805, 1806. 8.

d) Pathologie chirurgicale. Tom. I. II. Paris 1805, 1806. 8.

e) Handb. der medic. Chirurgie. Th. 2. Berl. 1806. 8.

f) Ueber die Erkenntniss und Cur der wichtigsten und häufigsten äusserlichen Krankheiten. Th. 1. 2. Erf. 1808. 1809. 8.

g) System der Wundarzneykunst. Abthl. 1. 2. Zweyte Aufl. Leipz. 1809, 1810. 8.

h) Kurzer Abriss der speciellen Chirurgie. Th. 1. Wien, 1812.

i) Avis aux chirurgiens pour les engager à accepter et à introduire une méthode plus simple, plus naturelle, et moins dispendieuse dans le pansement des blessés. Vienn. 1809. 8.

k) Würdigung der von Hrn. *Kern* in Vorschlag gebrachten neuen Methode Wunden zu behandeln. Wien, 1810. 8.

l) *Hecker's* Annalen. Th. 1. S. 362. f.

m) Lehre des chirurgischen Verbandes. Jena, 1805. 8.

n) Plan einer chirurg. Verbandlehre. Erl. 1810. 4.

o) Ueber die Anwendung und den Nutzen des Oels und der Wärme bey chirurgischen Operationen. Leipz. 1806. 8.

p) Med. chir. Beobacht. übers. von *Meckel.* Halle 1809. 8.

q) *Harles's* Jahrb. Th. 1. S. 155. f.

r) Chiron B. 1. St. 3.—Diss. de tumoribus nervorum. Leid. 1810. 8.

s) Ueber die Extirpation der Balggeschwulste am Halse. Wurzb. 1805. 8.

t) Angiektasie. Leipz. 1808. 4.

too generally, wished to attribute solely to the laceration of the muscular coat of the arteries. (*a*) *A. Winter* cured an aneurism by compression alone; (*b*) and on the subsequent dissection of the case, *P. E. Walther* (*c*) made some interesting remarks on the cure. *Deschamps*, for a popliteal aneurism, operated on *Hunter's* plan. (Mem. de l'Instit. 1806.) *Fleury* (*d*) made the remark, in operating aneurism of the femoral artery, that it was necessary to tie the vessel below the tumour, and that the disease often cures itself by the effusion of the blood from the ruptured sac into the neighbouring cellular membrane. *Astley Cooper* performed a most remarkable operation for a carotid aneurism. (*e*) The effects of ligatures on arteries, and the process of nature in suppressing hemorrhage from them when divided, was investigated by *J. F. D. Jones.* (*f*)

J. N. Rust was successful in his pathological and practical treatise on ulcers. (*g*) *K. A. Weinhold* treated old cutaneous sores by metallic oxides. (*h*) The dependence of obstinate ulcers of the feet, on a morbid state of the liver, and other viscera, was well exposed by *J. F. Rebentisch* (*Horn's* Archiv. July 1811.) *Falconer* (*i*) and *Latham* (*k*) published new dissertations on the disease of the hip-joint.

On the treatment of wounds of the head, *F. J. Brunner* published an insignificant essay. (*l*) That of *J. J. Canin* is of as little importance. (*m*) *Larrey* trepanned at unusual places. (*n*) *K. F. Gräfe* recommended some useful processes in this opera-

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a) *A. Scarpa* über die Pulsadergeschwülste. Uebers. von *Harles*. Zurich, 1808. 4.

b) Chiron, B. 1. S. 357. f.

c) Chiron, B. 3. S. 100.

d) Journ. génér. de la soc. de méd. Tom. XXVIII. n. 126. *Harles's* Journ. der ausländ. Lit. B. 10. St. 1.

e) Med. chir. Bemerk. einer medic. chirurg. Gesellsch. in London, übers. von *Osann.* n. 17.

f) Ueber den Proces, den die Natur einschlägt, Blutungen aus zerschnittenen Arterien zu heilen, und über deren Unterbindung. Aus dem Englischen von *Spangenberg*. Hannov. 1813. 8.

g) Helkologie. B. 1, 2. Wien, 1811. 8.

h) Die Kunst veraltete Hautgeschwüre zu heilen. Dresd. 1807. 8. *Zweyte* Aufl. 1810. 8.

i) Mem. of the med. soc. in Lond. Tom. VI. Samml. fur prakt. Aerzte B. 23. S. 337.

k) Medic. transact. publ. by a soc. of physic. at London. Tom. IV.

l) Vorschläge zu einer zweckmässigen Heilart der Kopfverletzungen. Dusseld. 1806. 8.

m) Considérations sur le traitement de quelques plaies de la tête. Paris, 1811. 8.

n) Denkwurdigk. S. 207.

tion.(*a*) It was successfully performed at Berlin for the cure of epilepsy.(*b*)

In regard to diseases of the eye, an introduction to their treatment was published by *K. Himly.*(*c*) *J. Wardrop* also described the morbid anatomy of the human eye.(*d*) *W. G. Benedict*(*e*) edited a complete treatise on the inflammations of this organ. An insignificant treatise was published by *J. Spindler.* (*f*) The purulent ophthalmia of children was described by *J. Ware*(*g*) and *W. F. Dreyssig.*(*h*) The Egyptian ophthalmia proved contagious in the English army, and occasioned many interesting inquiries.(*i*) *P. Rubini* and *Colla* (*k*) made some curious remarks on an epidemic ophthalmia in Parma. For the treatment of hypopion, *P. F. Walther* gave untenable rules.(*l*) *B. J. Beer* (*m*) attempted to explain the formation of staphyloma from inadequate causes. *J. W. Heinlein* considered this disease partially.(*n*) *G. A. Spangenberg* (*o*) examined more accurately the changes the cornea undergoes in it.

The indications for the formation of an artificial pupil, in cases of concretion of the iris, were accurately and fully given by *B. J. Beer.*(*p*) *J. A. Schmidt* reviewed the different methods of dividing, detaching, and cutting off part of the iris.(*q*) *Forlenze* is less accurate.(*r*) *K. Donegana* proposed, in this operation, a transverse division of the iris, to prevent its sub-

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a) *Hufeland's* Journ. B. 27. St. 2. B. 31. St. 5.

b) *J. C. Theine's* diss. sistens casum epilepsiae per terebrationem cranii feliciter sanatae. Berol. 1811. 8.

c) Einleitung in die Augenheilkunde. Jena, 1806. 8.

d) Essay on the morbid anatomy of the human eye. 1808. 8.

e) De morbis oculi humani inflammatoriis. Lips. 1811. 4.

f) Ueber die Entzündungen der Augen und ihre Behandlung. Wurzb. 1807. 8.

g) Remarks on the purulent ophthalmia. Lond. 1808. 8.

h) *Hufel.* Journ. B. 23. St. 3.

i) *Edmunston* observ. on the varieties and consequences of ophthalmia. Edinb. 1806. 8. *W. Thomas* on the Egyptian ophthalmia. London, 1808. 8. *Mongiardini* in the Mem. della soc. med. emulaz. di Genua, Vol. I. *Larrey's* Denkwurdigkeiten, S. 54. 262. f.

k) *Harles's* Journ. der ausland Lit. B. 10. St. 2.

l) Merkwurdige Heilung eines Eiterauges. Landsh. 1806.

m) Ansicht der staphylomatösen Metamorphosen des Auges. Wien, 1805. 8.

n) Abh. der phys. med. Societät zu Erlangen, B. 1. n. 7.

o) *Horn's* Arch. 1809. B. 1. Heft. 1.

p) Ansicht der staphylomatösen Metamorphosen des Auges. Wien, 1805. 8.

q) *Schmidt* und *Himly's* ophthalmol. Bibl B. 2. St. 1.

r) Considerations sur l'operation de la pupille artificielle. Paris, 1805. 8.

sequent union with the ciliary ligament. (*a*) *P. Assalini* (*b*) and *Benj. Gibson* (*c*) gave the latest instructions on this method.

P. F. Walther (*d*) described the diseases of the crystalline lens, and claimed, as his own discovery, the formation of cataract as a consequence of its inflammation, a circumstance previously mentioned by others. *Becquet* (*e*) made some good observations on the tremulous cataract and on the falling of the lens into the anterior chamber. *S. Cooper* (*f*) published a good dissertation on the operations for cataract in general. *H. F. Elsässer* recommended *Scarpa's* method of couching; (*g*) and *K. A. Weinhold*, (*h*) a peculiar modification of it.

Directed by a proposal originally made by *A. G. Richter*, and which was repeated by *J. C. Reil*, *W. H. J. Buchorn* was first led to a new method of operating cataract by puncturing the cornea. (*i*) *K. J. M. Langenbeck* (*k*) and *K. F. Gräfe* (*l*) examined this method, and confirmed its easiness and utility. *J. B. v. Siebold* (*m*) recommended a peculiar needle for it. But *Th. A. Weinhold* declared himself its opponent. (*n*)

Useful treatises on the diseases of the nasal cavities and maxillary sinus, were published by *J. L. Deschamps*, (*o*) *P. V. Leinicker*, (*p*) and *K. A. Weinhold*. (*q*)

The preservation of the teeth and their diseases, were illustrat-

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a) Della pupilla artificiale. Milano, 1809. 8.

b) Ricerche sulle pupille artificiali. Milano, 1811. 8.

c) Practical observations on the formation of an artificial pupil in several deranged states of the eye. Lond. 1811. 8.

d) Abhandlungen aus dem Gebiete der prakt. Medicin. B. 1. Landsh. 1810. 8.

e) Journ. génér. de la soc. de médéc. de Paris, tom. 27. n. 134. *Harles's* Journ. der ausl. Liter. B. 10. St. 1.

f) Critical reflections on several important practical points, relative to the cataract. Lond. 1805. 8.

g) Ueber die Operation des grauen Staars. Stuttg. 1805. 8.

h) Anleitung den verdunkelten Crystallkörper im Auge des Menschen umzulegen. Meissen. 1809. Zweyte Aufl. 1812. 8.

i) Die Keratonyxis. Magdeb. 1811.

k) Prüfung der Keratonyxis. Götting. 1811. 8.

l) Diss. de cataractae reclinatione et keratonyxide, resp. *J. F. E. Spörl*. Berol. 1811. 8. *Hecker's* Annalen, B. 3. S. 341.

m) Salzb. med. Zeit. 1812. B. 1. S. 277.

n) Nachträge zur Anleitung den verdunkelten Crystallkörper umzulegen. Meissen, 1812. 8.

o) Abh. über die Krankheiten der Nasenhöhle. Aus dem Franz. von *J. F. Dörner*. Stutt. 1805. 8.

p) Diss. de sinu maxillari ejusque morbis. Wirceb. 1809. 8.

q) Ideen über die abnormen Metamorphosen der Highmore's Höhle. Leipz. 1810. 8.

ed by *K. Schmidt* (*a*) and *J. F. Gallette.* (*b*) *G. W. Becker's* publication (*c*) is scarcely worth mentioning.

A remarkable and successful operation of an enormous hairlip was described by *J. H. G. Ottmar.* (*d*) *J. B. v. Siebold* made some observations on the amputation of preternatural large tongues. (Chiron. B. 1. St. 3.) In the same volume were inserted the observations of *A. Inglis* on the ligature of diseased portions of that organ.

Himly, without knowing of *A. Cooper's* previous operation, punctured (1805) the membrana tympani in deafness from closure of the Eustachian tube. However, he did not dissemble that this operation could be of no service in deafness from other causes, and that the puncture easily closed again. (*e*) *Maunoir* and *Cellier*, used a trocar to prevent its healing up quickly, (Chiron. B. 1. St. 3.), and restored the hearing completely by this operation. *Michaelis* in Marburg, and *Hunold* in Cassel, made the puncture with success. (*f*) But *Hufeland* pointed out the evil that might arise from wounding the chorda tympani, and stated the operation to have been performed fruitlessly in the Berlin institution for the deaf and dumb. (*g*) The observations of *C. P. Nasse*, (*h*) and *J. S. Beck*, (*i*) put proper limits to the praises bestowed on this operation, particularly by *Hunold.* *J. F. Fuchs* (*k*) would only puncture where, with a morbid effusion of fluid into the tympanum, the Eustachian tube is not present. He dreaded no bad effects from wounding the chorda tympani, but greatly the wax's passing through the puncture into the tympanum. *Hesse* recommended the extraction of diseased teeth in deafness. (*l*)

D. K. J. Merrem's proposal to extirpate the pylorus in incurable indurations of it, shows how little the surgeon dreads the most difficult operations. (*m*)

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a) Theorie und Erfahrung über die Zähne. Zweyte Auflage. Leipz. 1807. 8.

b) Blicke in das Gebiet der Zahnarzneykunde. Mainz 1810. 8.

c) Ueber die Zähne und die sichersten Mittel sie zu erhalten. Leipz. 1808. 8.

d) Nachricht von einer ausserordentlichen Hasenscharte. Helmst. 1805. 8.

e) Salzb. med. Zeit. 1806. B. 4. S. 37. f.—*Hufeland's* Journ. B. 25. St. 4. S. 175.

f) *Hufeland's* Journ. B. 24. St. 2.

g) *Hufeland's* Journ. B. 24. St. 3.

h) *Hufeland's* Journ. B. 25. St. 4.

i) Diss. de tympani perforatione in surditatis cura cautius rariusque adhibenda. Erl. 1806. 8.

k) Disquisitiones de perforatione tympani. Jen. 1809. 4.

l) *Hufel.* Journ. B. 39. St. 2.

m) Animadversiones quaedam chirurgicae. Giess. 1810. 4.

F. K. Hesselbach described more accurately the origin and treatment of inguinal herniæ. (*a*) *J. Hull* wrote a good dissertation on femoral hernia. (Chiron. B. 2. St. 1.) The operations for inguinal and femoral herniæ were described by *F. X. Rudtorffer.* (*b*) *F. W. G. Tritschler* investigated the occurrence and causes of hernia of the cœcum. (*c*) Classical works on hernia were published by *A. Cooper*, (*d*) *A. Scarpa*, (*e*) and *S. T. Soemmerring.* (*f*) *Sander* twice met with the rare case, where, without being congenital, the intestine was contained in the tunica vaginalis testis. (Chiron. B. 3. St. 1.) *B. G. Schreger* (*g*) made some excellent remarks on hydrocele complicated with hernia, and on congenital hydrocele. (*h*) *Ingen* observed an encysted hydrocele of the spermatic cord. (*i*) *Larrey* described his plan of radically curing hydrocele by the introduction of a piece of an elastic catheter. (*k*) *H. J. Brunninghausen's* popular instructions on ruptures and the use of trusses deserve praise. (*l*)

Barlow examined the different operations for lithotomy, and even recommended the high apparatus in certain circumstances, endeavouring to improve the instruments by a concealed bistoury of his own. (*m*) In Vienna, *Pajola's* method attracted a great deal of attention, though it must be owned the use of *Le Cat's* lithotomy knife has many inconveniences. It was allowed the advantage of permitting the sure evacuation from the bladder of all stony concretions. *F. X. Rudtorffer* accurately criticised this method. (*n*) *Klein* made some interesting remarks on his plan. (*o*)

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a) Anatomisch-chirurgische Abhandl. über den Ursprung der Leistenbrüch Wurzburg, 1806. 4.

b) Abhandl. über die einfachste und sicherste Operations-Methode eingesperte Leisten-und Schenkelbrüche. B. 1. 2. Wien, 1805, 1808. 8.

c) Observ. in hernias, praecipue intestini coeci. Tubing. 1806. 8.

d) Die Anatomie und chirurgische Behandlung der Leistenbrüche und angebor nen Brüche. Uebersetzt von *Kruttge.* Bresl 1809. fol.

e) Sull' ernie. Milan. 1809. fol.

f) Ueber die Ursache, Erkenntniss und Behandlung der Nabelbrüche. Frk 1811. 8.

g) *Horn's* Archiv, 1809. B. 1. Heft. 1.

h) *Horn's* Archiv, B. 3. Heft. 2.—Abh. der. phys. medic. Societät zu Erlangen, B. 1. S. 357. f. *Schreger* chirurg. Versuche, B. 1. Nurnb. 1811. 8.

i) Chiron, B. 1. St. 3. und *J. B. v. Siebolds* Samml. von Beobacht. B. 3. N. 5.

k) Denkwürdigkeiten, S. 585.

l) Gemeinnütziger Unterricht über die Brüche, den Gebrauch der Bruchbände u. s. f. Würzb. 1811. 8.

m) Chiron, B. 2. St. 3.

n) Abhandl. über die Operation des Blasensteins nach *Pajola's* Methode. Leip 1808. 4.

o) *Loder's* Journ. B. 4. St. 4.

Robert Allan (*a*) opposed the use of the gorget. *J. Thomson* recommended the method of Douglas and Cheselden anew. (*b*) *Tregeran* related Guerin's procedure, and described the improvements on it, (*c*) which, with proper alterations, *C. F. Michaelis* also recommended. (*d*) To alleviate the pain of stone, *B. G. Schreger* praised the injection of warm water. (*e*) *F. v. P. Gruithuisen* (*f*) proposed diminishing and totally removing calculus from the bladder by the injection and affusion (Perfundiren) of water and dissolvents.

C. F. Dörner made some judicious observations on the treatment of strictures in the urethra (Chiron, B. 1. St. 2.) *Petit* (*g*) recommended the application of nitrate of silver by means of a bougie. *J. H. Thaut* (*h*) and *B. G. Schreger* (*i*) investigated amputation of the penis; the latter recommended removing the member, by repeated tugs, close to the ossa pubis. He also published an excellent dissertation on indurations of the anus, which are different from hemorrhoidal swellings; and described a new method of applying the ligature in fistula ani, (*k*) on which operation, one of his pupils, *J. B. J. Berndorff*, had previously given a more literary essay. (*l*) With this, *Larrey's* method (*m*) ought to be compared.

A new work on fractures and dislocations in general was published by *L. Lämmerhirt*; (*n*) and another on fractures specially by *L. Hampe*. (*o*) *P. J. Leydig* (*p*) published a description of his contrivance for raising patients with fractures. A new machine for reducing dislocations of the shoulder was recommended by *J. F. Warnecke*, at Nurnberg, in 1810; and another for the same purpose by *J. F. Freytag*, at Chemnitz, also in 1810. A very useful dissertation on fractures of the olecranon, with a new method of treatment, was published by *J. Feiler*, at

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a) Treat. on the operation of lithotomy. Edinb. 1808. fol.

b) Observ. on lithotomy. Edinb. 1808. 8.

c) Chiron, B. 3. St. 1.

d) Etwas über den Blasensteinschnitt. Marb. 1813. 4.

e) *Horn's* Archiv, 1809. B. 2. Heft. 1.

f) Salzb. med. chirurg. Zeit. 1813. B. 1. S. 289—331.

g) Journ. de *Sedillot*, Tom. XLII. Nov.

h) Diss. de virgae virilis statu sano et morboso ejusdemque imprimis amputatione. Wirceb. 1808. 4.

i) Chirurg. Versuche, B. 1. Nurnb. 1811. 8.

k) Chiron, B. 3. St. 1.

l) Diss. de ligatura fistulae ani. Erl. 1806. 8.

m) Denkwürdigk. S. 589. f.

n) Taschenbuch über Beinbrüche und Verrenkungen. Berl. 1805. 8.

o) Ueber die Entstehung, Erkenntniss, Beurtheilung und Kur der Knochenbrüche. Brem. 1805. 8.

p) Krankenheber bey Knochenbrüchen, Mainz, 1812. 4.

Salz, in 1811. *J. M. Laurer* (*a*) recommended a new kind splints made of lime-tree, and considered the best method treating oblique fractures of the thigh. *M. Hagedorn* accurat ly illustrated the diagnosis and treatment of fractures of the nec of the thigh bone; (*b*) and *J. N. Sauter* (*c*) described a method curing fractures, without the use of splints. *J. G. Heine* mac some excellent observations on artificial feet, and the way using them. (*d*)

J. C. G. Jörg (*e*) gave a description of club-feet, arising fro continued abduction, and the best method of curing them b *Scarpa's* contrivance. At the same period, *E. F. Laiblin* r commended *Autenrieth's* machine for this purpose. (*f*) Th treatment of curvatures of the spine and limbs was improved b *Jörg*, (*g*) whose certain method gained him extensive reputatio Although *Thilenius* had previously cured the club-foot by d viding the tendo Achillis, yet the proposal of *C. F. Michae* was new, by incision of the tendons to relieve stiffness of tl joints, arising not from real anchylosis, but from preceding i action and inflammation of the muscles. (*h*)

Amputation was submitted anew to an accurate examinati by *C. J. M. Langenbek*, (*i*) and *K. F. Gräfe*. (*k*) *Larrey* adr rably illustrated the advantages of immediate amputation the field of battle, (*l*) and proved the benefit of amputation the joints; which was also done by *P. F. Walther*. (*m*) G. *Wachter* accurately described amputation at the knee-joint, and *W. Fraser* that at the shoulder. (*o*)

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a) *Mursinna's* Journ. B. 4. St. 3.

b) Abhandl. über den Bruch des Schenkelbeinhalses. Leipz. 1808. 8.

c) Anweisung die Beinbrüche der Gliedmassen, vorzüglich die complicirten, u den Schenkelbeinhalsbruch, nach einer neuen, leichten, einfachen und wohlfei Methode, ohne Schienen, sicher und bequem zu heilen. Constanz, 1812. 8.

d) Beschreibung eines neuen künstlichen Fusses für den Ober-und Untersch kel. Würzb. 1811. 8.

e) Ueber Klumpfüsse und eine leichte und zweckmässige Heilart derselb Leipz. 1806. 4.

f) Diss. de sanatione talipedum varorum ad virilem jam aetatem provectoru Tub. 1806. 8.

g) Ueber die Verkrümmungen des menschl. Körpers und eine rationelle u sichere Heilart derselben. Leipz. 1810. 4.

h) *Hufeland's* Journ. B. 33. St. 5.

i) Bibliothek für die Chirurgie, B. 3. St. 2.

k) Normen für die Ablösung grösserer Gliedmaassen. Berl. 1811. 4.

l) Denkwürdigk. S. 358. f.

m) Abhandlungen aus dem Gebiete der prakt. Medicin, B. 1. Landsh. 1810.

n) Diss. de articulis exstirpandis. Groning. 1810. 8.

o) Essay on the shoulder-joint operation. Lond. 1813. 8.

VII. *Medical Police.*

Among the general works on medical jurisprudence and medical police, the fifth volume of *J. P. Frank's* classical publication (*a*) merits particular mention; likewise his first supplementary volume published at Tubing. 1818, 8vo. The productions of *T. A. Ruland*, (*b*) *F. Kornatowsky*, (*c*) and *Franz Bene*, (*d*) are insignificant; and that of *F. A. Röbers* (*e*) does not render superfluous the principal work on this subject. The chief parts of medical police were lately arranged in alphabetic order by *J. F. Niemann.* (*f*)

Collections of tracts, notices, and ordinances, concerning health and medical police, were published by *J. A. Schmidtmüller*, (*g*) *J. Niederhuber* (*h*) *J. H. G. Schlegel* (*i*) *J. C. F. Scherf*, (*k*) *C. Knape*, *A. F. Hecker*, (*l*) *J. H. Kopp*, (*m*) *F. L. Augustin*, (*n*) *S. Hürl*, and *M. Jacobi.* (*o*)

The value of medicine and physicians, as connected with national administration, was considered by *C. F. L. Wildberg* (*p*) and *G. v. Wedekind.* (*q*) An anonymous author (*r*) published on

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a) System der medicinischen Polizey. Tubing. 1814. 8.

b) Von dem Einfluss der Staatsarzneykunde auf die Staatsverwaltung. Rudolstadt, 1806. 8.

c) Uebersicht der gesammten Staatsarzneykunde. Zerbst, 1805. 8.

d) Elementa politiae medicae. Bud. 1807. 8.

e) Von der Sorge des Staats für die Gesundheit seiner Bürger. Dresd. 1806. 8.

f) Handbuch der Staatsarzneywissenschaft. B. 1. 2. Leipz. 1813. 8.

g) Beyträge zur Vervollkommnung der Staatsarzneykunde. Landſhut, 1806. 8.

h) Beyträge zur Cultur der medicinischen und bürgerlichen Bevölkerungskunde. München, 1805. 8.

i) Materialien für die Staatsarzneywissenschaft und prakt. Heilkunde Samml. 1—8. Jena, 1800—1809. 8.

k) Allgemeines Archiv der Gesundheits-Polizey. B. 1. Hannov. 1805, 1806. 8.

l) Kritische Jahrbücher der Staatsarzneykunde fur das neunzhnte Jahrh. B. 1—2. Berl. 1806—1809. 8.

m) Jahrbuch der Staatsarzneykunde. J. 1—5. Frkf. 1808—1813. 8.

n) Repertorium für die öffentliche und gerichtliche Arzneywissenschaft. St. 1. Berlin, 1810. 8.

o) Jahrbücher des Sanitätswesens im Königreich Bayern. B. 1. Landsh. 1810. 8.

p) Kurze Anweisung, wie das Publicum von der Ausübung der Arzneywissenschaft durch die Aerzte den möglichst mindesten Vortheil ziehen kann. Gottingen, 1808. 8.

q) Ueber den Werth der Heilkunde. Darmst. 1812. 8.

r) Briefe medicinischen Inhalts. Riga, 1808. 8.

this subject some useful truths, in a clear and candid mann *König's* essay is insignificant. (*a*)

On the education of physicians, *P. J. Horsch* gave an exc lent essay, (*b*) and *K. Paulus* another (*c*) of equal merit. A p ceding writer, on the contrary, keeps within the doctrines of t philosophy of nature. (*d*) True and useful remarks on the nec sity of secondary schools for practical physicians, and on t disadvantage of separating medicine from surgery, were ma by *A. F. Nolde.* (*e*) The education of country practitione which Nolde proposed to entrust to these special schools, *J. Reil* previously thought (we can scarcely believe seriously) oug not to be at all scientific; and gave a description of learn physicians, which, for the honour of mankind, we hope is n often to be met with. The absurdity of this was clearly sho by *C. W. Hufeland,* (*f*) who, notwithstanding, subsequently (proposed to permit the clergy to practise medicine in the cou try, which actually was allowed in Sweden at the diet of 1809. To this place belongs *Osthoff's* excellent essay. (*i*) That *A. M. Vering* (*k*) is insignificant. *Stütz,* (*l*) and before him *A demacher,* then *C. F. Wildberg,* (*m*) and recently *G. v. We kind,* (*n*) opposed Reil's erroneous ideas. The Philosophi Society at Gottingen having made this the subject for a pri essay in 1810, gave occasion to a valuable refutation from *E. W. Münchmeyer.* (*o*)

The Prussian ordinances concerning medical police were c lected by *J. C. G. Liebecke;* (*p*) the Austrian by *P. J. v. Ferro.*

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a) Der Arzt, wie er ist und wie er seyn sollte. Zurich, 1806. 8.

b) Ueber die Bildung des Arztes als Klinikers und als Staatsdieners. Wu 1807. 8.

c) Darstellung einiger Hauptmomente aus der Heilkunde zur Bildung prakt. Aer Stuttg. 1811. 8.

d) Briefe uber das Studium der Medicin. Leipzig, 1805. 8.

e) Die Schulen der Aerzte. Braunchw. 1809. 8.

f) *Hufel.* Journ. B. 21. St. 1.

g) *Hufel.* Journ. B. 29. St. 5.

h) *Hufel.* Journ. B. 35. St. 6.

i) Uber die Verhältnisse des Geistlichen zum Arzte und dem Kranken. E 1806. 8.

k) Versuch einer Pastoral-Medicin. Munster, 1809. 8.

l) *Hufeland's* Journ. B. 26. St. 1.

m) *Knape's* und *Hecker's* krit. Jahrb. der Staatsarzneykunst, Th. 1.

n) Ueber den Werth der Heilkunde. Darmstadt, 1812. 8.

o) Ueber die beste Einrichtung des Medicinalwesens fur Flecken und Dö Halberst. 1811. 8.

p) Auszuge aus den kön. preuss. Polizey-Gesetzen in Beziehung auf Gesund und Leben. Magdeb. 1805. 8.

q) Sammlung aller Sanitäts-Verordnungen im Erzherzogthum Oesterreich. W 1807. 8.

J. E. Wetzler published first a project, (*a*) and then a description (*b*) of that of Bavaria. *A. J. Schutz* wrote a successful prize-essay, on the best arrangement of the medical profession for Suabia. (*c*) Medical ordinances were published in Saltzburgh (*d*) and Baden. (*e*) The medical laws of Mecklenburgh Schwerin were collected by *G. H. Masius.* (Rostock, 1811, 4to.)

The miserable state of the medical constitution in France was pourtrayed by *G. v. Wedekind*, in his work already referred to, and *Schultes.* (*f*) The laws and ordinances of the French government were collected and published by *J. C. Renard.* (*g*)

A reform of the medical police in England was proposed by *Ed. Harrison*; but the proposal failed, from the London College of Physicians being solely entitled to regulate the practice. (*h*)

In regard to particular improvements in medical police, we consider the precautions against contagious diseases to be the chief. The small-pox, once a frightful scourge, is extirpated, by the universal extension of vaccination. Compulsive measures and penalties for neglect of vaccination were ordered by the German governments, (*i*) and these measures approved by *J. E. Wetzler.* (*k*) *J. G. Bremsen* (*l*) also proposed punishing the omission of it with the loss of civil honour; and to commit to the country clergy, in general, the extending it by word and deed—a charge they have actually undertaken in several states. One of the best and most judicious authoritative ordinances for the practice of vaccination is the Austrian of 1808, (*m*) with which that published in Saltzburgh corresponds. (*n*) In the kingdom of Westphalia, likewise, vaccination was ordained by law. (*o*)

Foreign states promoted the inoculation of cow-pox with great zeal; the Danish government with uncommon energy.

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a) Entwurf der medicinischen Einrichtung fur die kurpfalzbayerschen Staaten. Ulm, 1805. 8.

b) Darstellung des Medicinalwesens von Bayern. Augsburg, 1809. 8.

c) Ueber die besten Einrichtungen des Medicinalwesens in Schwabens. Mannh, Th. 1, 2. 1808. 8.

d) Salzb. med. Zeit. 1805. B. 1. S. 353.

e) Salzb. med. Zeit. 1805. B. 2. S. 326.

f) Salzb. med. Zeit. 1812. B. 1. S. 188. f.

g) Sammlung der Gesetze und Verordnungen. Frankreichs, in Bezug auf Aerzte, Wundarzte und Apotheker. Mainz, 1812. 8.

h) Edinb. med. and surg. Journ. Vol. II. p. 487, 489.

i) Bayer'sche Verordnung vom. 26. Aug. 1807. in der Salzb. medic. Zeit. 1807. B. 4. S. 8.

k) Aktenstucke uber die Schutzpocken-Impfung in der bayerschen Provinz. Schwabens. Ulm, 1807. 8.

l) Die Kuhpocken, als Staatsangelegenheit betrachtet. Wien, 1806. 8.

m) Salzb. med. Zeit. 1808. B. 4. S. 289.

n) Salzb. med. Zeit. 1809. B. 1. S. 121.

o) *Nolde* in *Hufeland's* Journ. B. 30. St. 3.

Hence, already, in 1805, not a single child died of small-pox in Copenhagen. (*a*) In France, where, at first, there was great opposition by the profession, this beneficial discovery became subservient to the most infamous despotism, which preserves the lives of men, only to sacrifice them at its pleasure. The report of the committee of the National Institute on this subject deserves to be read. (*b*) Connected with this are the ordinances of the French government for the Lower Rhine, (*c*) and for Illyria. (*d*) *F. G. Friese* (*e*) described the passionate and disgraceful controversies on the value of vaccination which were carried on in Great Britain, till the decision of the College of Physicians, on the 8th July 1807, put an end to the dispute. Lately *Heberden* finally allowed, that the mortality among children has diminished by vaccination, as 13 : 12. *(f)*

J. Rehmann (*g*) related how it has extended even in Siberia; *W. Scott* (*h*) on the coast of Coromandel; and *H. Lichtenstein* on the southern point of Africa. (*i*)

The relation of cow-pox to other diseases was better determined, and more knowledge obtained on the nature of the virus. The difference of genuine and spurious cow-pox was established by *G. Ueberlacher*, (*k*) *Hardege*, (*l*) and *J. Thornton*. (*m*) Charcoal was recommended for preserving the efficacy of the vaccine matter by *K. F. Auber*, (*n*) who observed, that quartan fever was cured by that which vaccination occasions. *G. Ueberlacher* (*o*) showed how inoculation can be performed with the scab of the cow-pox. *A. Carl* invented an inoculating instrument. (*p*) Some good observations on the relation of cow-pox to other eruptive diseases were made by *A. F. Schutz* (*q*) and *P. J. Horsch*. (*r*)

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a) *Pfaff* im neuen nord. v. Archiv, B. I.

b) Salzb. med. Zeit. Ergänzb. 8. S. 401. f.

c) Salzb. med. Zeit. 1811. B. 1. S. 109.

d) Salzb. med. Zeit. 1811. B. 1. S. 141.

e) Versuch einer historischkritischen Darstellung der Verhandlungen uber die Kuhpocken-Impfung in Grossbritannien. Breslau, 1809, 8.

f) Med. chirurg. transact. publ. by a medico-chir. soc. at London. Vol. IV.

g) Salzb. med. Zeit. 1807. B. 1. S. 186.

h) Edinb. Med. and Surg. Journ. 1813. p. 307.

i) *Hufeland's* Journ. B. 31 St. 1.

k) De vaccina antivariolosa epitome. Vienn. 1807. 8.

l) *Huf.* Journ. B. 23. St. 2.

m) Preuves de l'efficacité de la vaccine; trad. par *Duffour*. Paris, 1807. 8.

n) Découverte nouvelle d'un procédé simple et facile, pour conserver pendant plusieurs années le fluide vaccin. intact. Paris, 1805. 8.

o) Nachricht uber die Wirksamkeit und Nützlichkeit der Kuhpocken-Impfung mit dem Shorfe. Wien, 1807. 8.

p) Art. zu impfen. 1807. 8.

q) *Hufeland's* Journ. B. 29. St. 1.

r) Annalen der clinischen Schule. Heft. 2.

G. P. Michaelis (a) related a case of vaccine inoculation, accompanied by general cutaneous redness, of which the child died. It being pretended in England, that, in some instances, the natural pox had taken place after vaccination, *G. F. Mühry* translated *R. Willan's* dissertation on the cow-pox inoculation. (Göttingen, 1808.) In it are related cases in detail of the appearance of small-pox subsequent to vaccination; but as, in these, the eruption scabbed on the sixth day from its appearance, *Willan* concluded that small-pox after cow-pox does not follow its usual course, the disposition to it being destroyed by vaccination. *Wendelstadt* (b) also observed, in 1807, the natural pox take place a year and a half after vaccination. *Mühry*, in November 1808, saw an eruption of small-pox in a child which had passed through cow-pox in 1804; here also the scabbing followed on the sixth day. (c) Hereupon *E. L. Heim* (d) declared this eruption to have been spurious small-pox; but *Mühry*, in a reply, (e) held it for modified small-pox, because its virus, by inoculation, reproduced genuine small pox. In Berlin, where a similar case happened, *Bremer* and *Zencker (f)* considered the eruption as spurious small-pox. The last work of *L. Sacco* (g) on cow-pox, grease, and sheep-pox, determines the relations of these animal eruptions, the chemical and microscopical constitution of the vaccine virus, and informs us of the great success of vaccination in Italy. Primitive cow-pox, which *Sacco* also observed, were discovered in Germany by *Bremer*, *Fischer*, and *Mende*. (h)

The inoculation of measles, first tried by *Home*, was performed successfully with the blood of the eruption, by *F. E. Holst*. (i)

The means of preventing the spreading of the plague and yellow-fever were considered by *F. v. Schraud*, (k) *Fr. L. Augustin*, (l)

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a) *Hufeland's* Journ. B. 30. St. 6.

b) Samml. medic. und chir. Aufsätze, B. 2. K. 3.

c) *Hufel.* Journ. B. 28. St. 3.

d) *Horn's* Archiv, 1809. B. 7. Heft. 2.

e) *Hufeland's* Journ. B. 30. St. 2.

f) *Horn's* Archiv, 1811. Marz.—*Heim* in the same work for Sept.

g) Neue Entdeckungen über die Kuhpocken. die Mauke und die Schaafpocken. Aus dem Engl. von *W. Sprengel.* Leipz. 1812.

h) *Hufel.* Journ. B. 35. St. 5.

i) Salzb. med. Zeit. 1811. B. 1. S. 205. f.

k) Vorschriften der inländischen Polizey gegen die Pest und das gelbe Fieber. Wien, 1805. 8.

l) Was hat Deutschland und insonderheit der Preuss. Staat vom gelben Fieber zu furchten, und welche Mittel sind gegen die Ausbreitung dieser Krankheit zu ergreifen? Berl. 1805. 8.

J. G. Langermann, (*a*) *J. Feiler*, (*b*) *B. S. Nau*, (*c*) and *C. E. Harles*. (*d*)

As a general means of destroying contagion, *Guyton Morveau's* method of producing muriatic acid vapours was recommended, and proved by experience. (*e*) This means, with other preventive measures, was recommended by *C. J. Kilian*, on the appearance of the camp fever of 1806–7; (*f*) and on that of 1809, by *P. K. Hartmann*, (*g*) and *M. J. Gutberlet*. (*h*) *P. A. Castberg* (*i*) proposed various regulations. And in the last camp-fever, *L. W. Gilbert* (*k*) and *A. F. Gräfe*, (*l*) recommended anew *Guyton Morveau's* method.

G. Bicker again exposed the harm of having burying-grounds in towns. (*m*) The means to be employed in suspended animation were well and clearly explained by *J. C. Flachsland*. (*n*) *Portal* described the treatment of asphyxia from mephitic gases. (*o*) The reports of the Hamburgh Humane Society are very instructive; (*p*) likewise the publication of *J. H. M. Popp*. (*q*)

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a) Ueber das gelbe Fieber, was Deutschland davon zu besorgen, und dagegen für Vorkehrungen zu treffen hat? Hof, 1805. 8.

b) Aufruf an die sämmtl. Regierungen, Polizeybehörden und Aerzte Deutschlands in Hinsicht auf die gegen die gelbe Pest zu treffenden Vorkehrungen. Nürnb. 1805. 8.

c) Entwurf einer Polizeyverordnung gegen die weitere Verbreitung der westendischen Pest. Frkf. 1805. 8.

d) Die gerechten Besorgnisse und die gegründeten Vorkehrungen Deutschlands gegen das gelbe Fieber. Nürnb. 1805. 8.

e) Abhandlung ueber die Mittel die Luft zu reinigen, der Ansteckung vorzukommen und die Fortschritte derselber zu hemmen. Aus dem Franz. von *F. J. Martens*; nebst einem Anhange von *C. F. Buchholz*. Weimar, 1805. 8.

f) Was soll man in den jetzigen Kriegzeiten thun, um sich gegen die Gefahren des Nerven-oder Faulfiebers zu schutzen? Leipz. 1807. 8.

g) Sicherungsanstalten und Verwahrungsmittel gegen ansteckende Nervenund Faulfieber. Olmutz, 1810. 8.

h) Versuch über die Sicherungsanstalsten gegen die Entstehung und Ausbreitung contagiöser Krankheiten unter den Soldaten im Felde. Wurzb. 1811. 8.

i) Forslag til Medisinalpolitiek under Epidemiers Grassern. Kiöbenhaven, 1809.

k) Für jeden verständliche Anweisung. wie man es anzufangen habe, um bey bösartigen Fieber-Epidemieen aller Art sich gegen Ansteckung zu schützen. Leipz. 1813. 8.

l) Die Kunst sicht vor Ansteckung bey Epidemieen zu sichern. 12. Berl. 1814.

m) Von den Nachtheilen der Begräbnisse in Städten. Brem. 1811. 8.

n) Ueber die Behandlung der Scheintodten. Carlsruhe, 1806. 8.

o) Instruction sur le traitement des asphyxies par les gaz méphitiques. Paris, 1808. 8.

p) *J. A. Günthers* Geschichte und Einrichtung der Hamburgischen Rettungsanstalten. Hamb. 1808. 8.

q) Das allgemeine Rettungsbuch von *J. H. M. Popp*. Pyrmont, 1808. 8.

Measures for the better management of mad-houses were proposed by *J. C. Reil*, in an appendix to a translation of *Mason Cox's* practical observations on insanity, published at Halle, 1811, 8vo. He prefers the public to the private institutions. Of the latter there are several in England; one in particular at York, of which *S. Tuke* has given an admirable description. (*a*) *G. Nesse Hill's* essay on the prevention and cure of insanity, Lond. 1813. 8vo. is also to be noticed here.

B. *Medical Jurisprudence.*

Among the text-books on this subject, *J. B. Metzger's* compendium (*b*) still maintains, if not the first, at least a very distinguished place. With him vies *C. F. Wildberg*, (*c*) who has incontestably given more references, and has carried the investigation of such subjects further. *G. H. Massius* (*d*) is only remarkable for a different arrangement of the subject, and an affected philosophical language. *A. Henke* (*e*) likewise attempted a different arrangement, and, to have something peculiar, digressed into the science of laws. Still more insignificant are *Fr. Bene's* Elementa Medicinæ Forensis. Bud. 1811. 8.

Single contributions were given by *W. F. W. Klose*, (*f*) *W. J. Schmitt*, *B. L. Bachmann*, *J. K. Küttlinger*, (*g*) and *F. G. H. Fielitz*. (*h*)

Judicial dissections constitute a chief practical part of this department. And to these, *A. K. Hesselbach* (*i*) gave an excellent guide; with which that of *M. Hafner* (*k*) cannot bear a comparison. But that of *T. G. A. Roose*, (*l*) however, still preserves its distinguished value. As no improvement of the medical jurisprudence in the kingdom of Saxony had taken place, *F. G.*

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a) Description of the Retreat, an institution near York for insane persons. York, 1813. 8.

b) Kurzgefasstes System der gerichtlichen Arzneywissenschaft. 4te Auflage, von *C. G. Gruner*. Königsb. 1814. 8.

c) Handbuch der gerichtl. Arzneywissenschaft. Berl. 1812. 8.

d) Lehrbuch der gerichtl. Arzneykunde fur Rechtsgelehrte. Th. 1, 2. Altona, 1810, 1812. 8.

e) Lehrbuch der gerichtlichen Medicin. Berl. 1812. 8.

f) Beytrage zur gerichtl. Arzneykunde. Bresl. 1811. 8.

g) Einige auserlesene medicinisch-gerichtliche Abdhandlungen. Nurnb. 1813. 4.

h) Archiv der gerichtlichen Arzneywissenschaft. St. 1. Leipz. 1811. 8.

i) Vollständige Anleitung zur gesetzmässigen Leichenöffnung. Wurzburg, 1812. 8.

k) Neues und nützliches Taschenbuch fur Beamte, Aerzte und Wundärzte. Augsb. 1809. 8.

l) *T. A. G. Roose's* Taschenbuch fur gerichtliche Aerzte. Vierte Aufl. von *K. Himly* besorgt. Frankf. 1811. 8.

Fielitz published his opinions on an authoritative order for the procedure to be followed at judicial dissections. (*a*) By command of the Wirtemberg government, the faculty of medicine of Tubingen, gave a mandate to the government-physicians for the greater accuracy in such investigations; and this gave occasion to *J. H. F. Autenrieth's* admirable 'guide for physicians in cases of legal inspection. Tub. 1806. 8vo.' That of *G. H. C. Crusius* (*b*) is also commendable.

The degree of mortality of wounds was considered by *C. F. Wildberg*, (*c*) *J. E. Leitzau*, (*d*) and *J. Kopp.* (*e*) *F. B. Osiander* produced an excellent dissertation on suicide. (*f*) *F. Wegeler* (*g*) published several instructive documents on a doubtful case of suicide. *F. B. Immisch's* judgment on a similar case is also very accurate and instructive. (*h*)

The detection of poisoning by arsenic was illustrated by *C. H. Pfaff*, (*i*) *Roloff*, (*k*) but in particular by *Rose*. (*l*)

On the proof of child-murder, derived from the swimming of the lungs, which has so often been disputed, *J. A. Schmidtmüller* justly observed, that all depends on the presence of the natural quantity of blood in the lungs. (*m*) *W. J. Schmitt* (*n*) instituted important experiments, which taught him, that the weight of the lungs does not always correspond to the weight of the body so accurately as the strenuous defenders of *Ploucquet's* test give out; that a child can breathe when the head alone is born; that putrid lungs do not float; and that the colour of the lungs is fallacious. On the test of child-murder, from completed respiration, as well as upon several judicial questions concerning childbirth, accurate investigations were made by *C. F. L. Wildberg*. (*o*)

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a) Arch. der gerichtlichen Arzneyw. St. 1. Leipz. 1811. 8.

b) Vollstandige und deutliche anatomische Anweisung fur gerichtl. Aerzte zu Leichenuntersuchungen. Götting. 1806. 8.

c) Wie die tödtlichen Verletzungen beurtheilt werden mussen. Lipz. 1810. 8.

d) Von der Tödlichkeit der Verletzungen. Berl. 1811. 8.

e) Ueber körperliche Verletzungen, in soweit als sie das Verbrechen der Tödtung bilden. Frkf. 1812. 8.

f) Ueber den Selbstmord, seine Ursachen, Arten, medicinisch-gerichtliche Untersuchung, und die Mittel gegen denselben. Hannover, 1813. 8.

g) Fünf medicinisch-gerichtliche Gutachten über einen erhängt gefundenen Knaben. Koblenz, 1812. 8.

h) Suicidium dubium casu singulari illustratum. Jen. 1808. 8.

i) Neues nord. Archiv, t. 1.

k) Salzb. med. Zeit. 1811. B. 2. S. 189.

l) *Gehlen's* Journ. B. 2. S. 665.

m) *Horn's* Archiv, 1805. B. 2. Heft. 1.

n) Neue Versuche und Erfahrungen über die Ploucquet'sche und hydrostatische Lungenprobe. Wien, 1806. 8.

o) Decisiones medico-legales quaestionum dubiarum de infantibus neogenitis. Götting. 1808. 8.

W. A. Ficker, by reasoning and his own experience, endeavoured to show that the fœtus can breathe in the uterus. (*a*) In consequence of the pulmonary test having indicated respiration to have taken place in a hydrocephalic child, which, however, gave no distinct sign of life, *Benedict* concluded that this proof is of no weight where hydrocephalus is present. (*b*) To us this induction is not satisfactory; for respiration can undoubtedly take place without other signs of life, and does not depend on the integrity of the brain, but on the influence of the par vagum. In a child born before the full time, which, however, lived twenty hours after birth, *Mendel* (*c*) found that the lungs partly sunk in water. *A. Henke* likewise stated several good objections to the pulmonary test. (*d*)

Finally, on impotence in man, and on rape, *E. G. Elvert* published a dissertation which was not altogether satisfactory. (*e*)

II.

Reports on the Ardent Fever of the West Indies, as occurring on board his Majesty's Ships Raven and Niobe, in the year 1815.

By Mr Peter Comrie, Surgeon, Royal Navy.

" O medici, mediam pertundite venam ! "—Juvenal.

I. *Fever of the Raven.*

When I joined his Majesty's ship Raven, in Carlisle Bay, Barbadoes, on the 7th April 1815, there was only one man sick of fever on board ; but I understand that, previously, Mr Black, my predecessor, and a few others, had been attacked with fever, and sent to the royal naval hospital at Barbadoes. In a few days afterwards she sailed for Surinam, arrived there on the 16th, and was lying off Paramaribo until the 23d, when we sailed for Demerary, and were in that harbour from the 24th to the 30th. We afterwards went to Trinidad, and re-

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a) Salzb. med. Seit. 1810. B. 2. S. 305. f.

b) Salzb. med. Zeit. 1812. B. 4. S. 337.

c) *Hufel.* Journ. B. 32. St. 4.

d) Revision der Lehre von der Lungen-und Athemprobe. Berl. 1811. 8.

e) Die Unzulässigkeit ärztlicher Entscheidung über vorhandenes männliches Vermögen. Tubing. 1808. 8.

mained there about two days. While at Surinam, the rain almost continually fell in torrents, accompanied with much thunder and lightning; the atmosphere was almost always dark and hazy, and surcharged with electrical matter, and a great many flashes of lightning appeared in the evening, and during the course of the night; but at Demerary we had fairer weather. At both colonies we were plentifully supplied with very excellent fresh beef, and, at Demerary, with vegetables. At Surinam no fruit could be procured; but at Demerary and Trinidad it was plentiful. At Trinidad no fresh beef for the ship's company could be procured, but plenty of vegetables. On our passage to Surinam six men were affected with fever, and four more during the time the ship remained there, and two whilst we were in Demerary harbour. On our passage to Barbadoes, eighteen were taken ill of fever, whereof five were discharged to duty, and the remainder sent to the hospital, on our arrival there, the 15th May, in a convalescent state.

They were taken ill on our passage from Trinidad to Barbadoes as follows; viz. On the 3d May, one; on the 4th, two; on the 7th, one; on the 9th, one; on the 10th, one; on the 11th, eight; on the 12th, one; on the 13th, two; on the 14th, one. And, while the ship was in Carlisle Bay, Barbadoes, from the 15th of May to the 27th, the number of men taken sick was as follows; viz. On the 15th May, six; on the 16th, eight; on the 19th, two; on the 20th, two; on the 22d, one; on the 24th, one; on the 25th, two; and on the 27th, two.

The total number attacked with fever is therefore (including relapses) 55, and the number sent to the hospital, 36. All these patients were cured; viz. at the hospital, 36; on board, 19.

The ship's company had been formerly almost always on cold stations, and most of them were natives of cold climates, and of very plethoric habits. This vessel had been, for some time before I joined her, in the Gulf of Paria, off Trinidad; and the ship's company had been exposed to much the same kind of weather as I mentioned above to have been at Surinam.

A General History of the Fever as it appeared in the Raven.

It generally commenced with alternating chills and heats, or a sensation of chilliness when the body was preternaturally warm, and sometimes with cold shiverings, succeeded by preternatural heat, which lasted very often two or three hours, exactly resembling the paroxysm of an intermittent, excepting the absence of the sweating stage. At other times these incipient symptoms were wanting; but it was always attended with vertigo and headach (the pain particularly referred to the forehead, eyeballs, and temples); frequently a stiffness and obtuse pain about the nape of the neck, and pains in the back, loins, and extremities, resembling acute rheumatism (the pains in the lumbar regions vibrating on each side as far as the linea alba); pains in the thorax and abdomen, increased upon respiration; and pain in the abdomen very much increased upon pressure; or upon being touched (particularly in the region of the stomach), and occasional anxiety about the præcordia and hypocondriac regions, accompanied with much thirst, nausea, and sometimes vomiting; a very bitter taste in the mouth, and other symptoms of pyrexia. In some cases there were only vertigo and slight headach, and some anxiety about the præcordia, accompanied with increased heat, thirst, and frequency of pulse. Pulse, in general, above 100 or 120, and somewhat hard and full; sometimes above 130, and weak; but, after venesection, full, strong, and vibrating. Tongue often of a dirty yellowish colour, sometimes clean, but red, or white, and dry, and occasionally moist. Mouth generally dry and parched. Face flushed. Eyes suffused. Bowels mostly costive; but now and then, though rarely, there was frequent purging of a greenish substance, and then there was always vomiting. Without discrimination, this state of the disease might have been mistaken for cholera morbus.

The treatment applied was large and copious bleedings, sometimes to the amount of 200 ounces or more, in the course of three or four days; and, when the skin continued preternaturally warm after venesection, the cold affusion was repeatedly applied, until the morbid heat was somewhat removed, giving immediately, when the stomach could retain them, large doses of calomel and pulv. jalap.; in general, Submuriat. hyd. gr. xviii. Pulv. jalap. ʒss. and repeated if the bowels were not previously freely evacuated. When the mouth began to be the least tender, frequent doses of the neutral salts were given, provided the stomach could retain them. If the fever was attacked early, and the treatment I have mentioned above rigorously applied, it generally terminated favourably on the third or fourth day; but, if neglected in the beginning, by the patients not making application, or otherwise, it was always protracted until the seventh day, and often much longer. This happened in cases, which, from their slightness in the beginning, the people thought they could work off (as they termed it).

Whilst the ship was at Surinam, I had an attack of fever, amongst the first that were affected there, and performed several times phlebotomy upon myself (there being no medical gentlemen at hand), and the relief I experienced was incredible. I was for a few minutes almost free from pain, but a little uneasy, in consequence of syncope that was produced. After this, I was able, with a little assistance, to attend the sick pretty regularly.

II. *First Fever of the Niobe.*

The ship's company, since I joined this ship, on the 28th May 1815, has been, comparatively speaking, pretty healthy, until we arrived, on the 14th September, at English harbour, Antigua, to refit, where we remained until the 25th. During this interval a great many of the ship's company were attacked with the endemic of this country; and, Captain Deacon seeing it increase more and more, and being informed, that, as it increased, it was attended with more violent symptoms, with much prudence and discernment went to sea, and cruized to windward of all the islands, and until we were in latitude 19° 39′ north, and longitude 61° 45′ west, when the fever began to decrease. We then returned to English harbour to complete the refitting of the ship, and scarcely any were again affected with fever, although we remained at English harbour from the 3d of October to the 14th, and although the ship's company, watch by watch, had liberty to go on shore frequently.

While in English harbour the wind was first east, E. S. E., and, lastly, N. E., with occasional heavy squalls, and the atmosphere was sometimes very warm and sultry, and then, suddenly, cold breezes would occasionally come down from the mountains, on each side of the harbour, when the body was preternaturally warm and covered with perspiration. On any day that was very warm and sultry, and the sun very scorching, there was generally a great fall of dew during the night, but particularly towards morning, and, consequently, that night was a little colder than usual. I am very sorry that I had no thermometers, that I might have observed the sudden changes of temperature, both of the atmosphere and of the living body. On the 18th of September there were constant strong gales of wind during the day. The wind was first north, afterwards N. N. W., N. W., W. N. W., and then S. W.; and, in the afternoon, the wind was from S. W. by W., and then varied to S. S. E. and S. S. W. The atmosphere seemed to be surcharged with electric fluid, and had every appearance of an approaching hurricane. In the evening there were frequent squalls, accompanied with much thunder and lightning, and then the weather became more moderate. From the 19th to the 25th the wind varied from S. E., E. S. E., and E. to N. E., with occasional squalls, but generally moderate breezes.

Early in the morning of the 6th of October, there was so much thunder and lightning, that the victualling storehouse, at Falmouth Bay, Antigua, was set on fire by the electric fluid, and completely reduced to ashes, and several houses in the vicinity were struck by it, and received a severe shock, but not having materials so combustible internally, sustained very little damage.

An Account of the Number daily attacked with Fever, and the date thereof.

Date.	No.	Date.	No.	Date.	No.	Total.
September 6	1	September 22	2	October 6	2	
———— 7	1	———— 23	6	———— 11	2	
———— 13	2	———— 24	2	———— 12	1	
———— 15	1	———— 25	10	———— 13	1	
———— 17	1	———— 26	4	———— 15	1	
———— 18	4	———— 27	3	———— 16	1	
———— 19	3	———— 28	4	———— 18	1	
———— 20	2	———— 30	3	———— 21	1	
———— 21	4	October 2	1	———— 22	1	
	19		35		11 =	65

A short History of the Fever as it appeared in the Niobe, at English Harbour, Antigua.

In most respects it resembled the fever as it appeared in the Raven; but, as it differed a little from it in some of its symptoms, and although it may be attended with several repetitions, it may perhaps be worth while to give an account of its symptoms as they appeared in this epidemic. It commonly commenced with alternate chills and heats, or a sensation of chilliness, though the skin felt when touched by another person preternaturally warm; and sometimes with cold shiverings, succeeded by preternatural heat, exactly resembling the paroxysm of an intermittent fever, excepting the absence of the sweating stage. These incipient symptoms were frequently wanting; but it was always attended with vertigo, often to such a degree as to cause the patients to fall down suddenly, and apparently without any previous indisposition; and, generally, with violent headach, (the pain particularly referred to the eyeballs, superciliary processes, forehead, and temples); a stiffness and obtuse pain about the nape of the neck, and distressing pains in the back, loins, and extremities, resembling acute rheumatism, and the pains in the lumbar region vibrating, on each side, as far as the linea alba, and as it were mingling with one another there. It was also attended with pains in the thorax and abdomen, increased upon respiration; and in the abdomen, increased upon being touched, often to such a degree, that the patient cried out if I did not lay my hand very gently upon the abdomen, when examining, or by accident, (particularly upon the epigastric region.) There was usually much anxiety about the præcordia and hypochondriac regions, accompanied with much thirst, nausea, and a very disagreeable bitter taste in the mouth; and always vomiting when the abdomen was tender upon being touched. It was very often accompanied with despondency or hypochondriasis, sometimes with furious and wild delirium, afterwards succeeded by coma and coldness of the extremities. In some cases there was only vertigo and slight headach, with some anxiety about the præcordia, accompanied with increased heat of skin and frequency of pulse, but not always. Pulse, in general, above 100, or 120, full and somewhat hard; sometimes above 130, or 150, small and weak; but after venesection from a large orifice, and in large quantity, full, strong, and vibrating. Tongue of a dirty yellow colour; often clean, but red or white; sometimes dry, and furred, and occasionally moist. Face flushed. Eyes suffused and watery, or of a shining glossy appearance. Bowels obstinately constipated; but sometimes, though rarely, there was frequent purging and vomiting of a greenish or yellowish substance, resembling cholera morbus.

The treatment adopted at the commencement, was to have recourse to large and copious bleedings; sometimes above 100 ounces in the space of twelve hours, and repeated until the urgent symptoms were removed, such as headach, pain in the thorax and abdomen, heat of skin, &c. The first bleeding was generally to the amount of 60 ounces or more, and was always continued until syncope was induced. The patient was, for the most part, placed in the recumbent posture; and, when vomiting came on, more blood generally could be extracted, though syncope had been previously produced. When there was much pulsation of the carotid and temporal arteries, and consequently a great determination of blood to the head, the head was shaved and kept continually wet with cold saturnine lotions; and the temporal artery was opened, which generally bled very freely. When the skin continued preternaturally warm, even after venesection, (which sometimes happened), or even if it was not below the natural temperature, the cold affusion was repeatedly applied, and with evident advantage. About two or three hours after venesection, (provided the stomach could retain them), large doses of calomel and jalap were given, and repeated until the bowels were freely evacuated: in general ℈i. of calomel, and ʒss. pulv. jalap.; the calomel in the form of a bolus, and the pulv. jalap. made into a draught, with the aq. menth. piperit. Whenever the mouth became the least tender, small doses, frequently repeated, of the sulph. magnes. dissolved in the aq. menth. piperit. were given; and gargles, composed of alum and other astringent substances, were very often used. After venesection, the bowels were generally freely evacuated spontaneously, though previously obstinately constipated, and no cathartic medicine would operate.

In some protracted cases of fever, which were very evidently combined with symptoms of gastritis and enteritis, enemata cathartica were very often used; warm fomentations, and the warm bath were frequently applied; and afterwards blisters, still having recourse to venesection, though not so very freely as at the commencement.

If nausea and vomiting continued for any length of time, the carbonate of ammonia was made into an effervescent draught, and taken in effervescence every two or three hours. When the extremities were cold, warm fomentations were frequently applied, and warm bricks or stones to the plantæ pedum.

When there was much debility after the fever was nearly subdued, (which seldom happened), the camphorated mixture, combined with the carbonate of magnesia, was given every three hours.

These latter symptoms very seldom occurred in a very violent degree, provided timely application was made, and the proper steps taken to check the progress of the fever.

When the disease began with violent symptoms, the patient always complained immediately; but the disease often begins in a very insidious manner, sometimes scarcely any perceptible symptoms of fever appearing at the beginning. In these cases, the patients are frequently ashamed to complain; and then, and then only, it is sometimes neglected in the beginning. But, I believe, the disease may generally be discovered by the patient's dull and languid appearance, and by pressing upon the abdomen. In such cases, I have sometimes seen the fever assume its regular type and form, by taking away quickly 60 or 70 ounces of blood from a very large orifice.

The captain and most of the officers, all the warrant-officers, and almost all the midshipmen, and others that are included in this report, were severely attacked with this fever; and, by pursuing rigorously the above plan of treatment, they all recovered very rapidly; and all the men that were sent to the hospital at Antigua have returned, and are now in perfect health and spirits.

In short, I have never observed debility produced by large and copious venesections, when urgent symptoms indicated them; but, on the contrary, strength and increased vigour.

H. M. S. Niobe, Barbadoes, December 1st, 1815.

III. *Second Fever of the Niobe.*

Very few cases of fever appeared on board since September last, (though we were previously some time in English Harbour), until about the period of our sailing from Barbadoes for Bermuda, on the evening of the 14th of December, with the officers and non-commissioned officers of the 1st West India regiment. But, *immediately* after we went to sea, the most severe concentrated type of fever that I ever saw made its appearance. It is probable that several were indisposed for some time previous to their making application, as some of them had candour to confess so to me; and the reason they assigned for their neglect was, that they were afraid of being sent to the hospital, and, on that account, not be able to get home so soon; as they knew the Niobe was to proceed from Bermuda to England.

As I have frequently observed some change of weather, and particularly the wind changing its usual direction considerably, previously to fever appearing as an epidemic in the West Indies, it may, perhaps, be of some use to give a brief account, in the form of a journal, of the state of the weather, during the time we were in Carlisle Bay, Barbadoes, and until the fever disappeared. I shall then give the number that were daily attacked with this disease; and, lastly, a short outline of the fever, and the method of cure adopted.

A JOURNAL OF THE WEATHER.

Nov. 28th, arrived at Carlisle Bay from Antigua, where we were previously for about ten days. Moderate breezes and fine weather. Wind E. N. E. Nov. 29th, A. M. moderate, &c. Wind E. S. E. and N. E. At noon, fresh, and fine weather. P. M. fresh breezes and fine, but at 8 P. M. constant rain, which continued, with very little intermission, during the night. Wind E. N. E., S. E. and S. S. E. Nov. 30th, A. M. moderate breezes, accompanied with rain. At 10 A. M. fair weather. Wind E. S. E Dec. 1st, moderate breezes and fine. Wind N. E., and E. N. E. Dec. 2d, A. M. moderate and fine weather. Wind at first variable, then calm. P. M. wind

W. N. W. Dec. 3d, moderate, &c. Wind E. N. E. Dec. 4th, moderate, &c. Wind at first variable, then N. E. Dec. 5th, light airs and fine. A. M. wind N. E. P. M. variable. Dec. 6th, moderate, &c. A. M. wind variable. P. M. N. E. Dec. 7th and 8th, moderate, &c. Wind N. E. Dec. 9th, moderate, &c. A. M. wind N. E. P. M. W. N. W. and N. E. Dec. 10th, moderate, &c. Wind E. N. E. 11th, moderate, &c. Wind S. E. Dec. 12th, moderate, &c. Wind S. S. E. Dec. 13th, A. M. moderate and cloudy. At noon squally. P. M. fresh breezes, and squally, accompanied with rain. Wind, A. M., S. S. E. and S. W. P. M. S. by E. and variable. Dec. 14th, A. M. light airs and cloudy. At 8 A. M. moderate, &c. Wind, early in the morning, variable, afterwards S. E. by E. and S. E. by S½ S. P. M. S. E. by S½ S. variable, and afterwards east. At 5 P. M. made sail for Bermuda. 15th, A. M. light airs and cloudy, accompanied with lightning. P. M. light airs and fair weather, and occasionally calm. At midnight, moderate, &c. A. M. wind east. P. M. E. by S. variable, and at 7 P. M. northerly, and continued so during the night. Latitude at noon 13° 46′ N. 16th, A. M. moderate and cloudy. At noon squally, accompanied with rain. P. M. squally, accompanied with heavy rain, afterwards moderate breezes, with rain. At midnight, light airs and fair. A. M. wind north, N. E. by N. N. E. and variable. P. M., N. by W. and afterwards calm and variable alternately. 17th, A. M. light airs and cloudy. P. M. light airs and variable, attended with rain, and afterwards calm and cloudy. At midnight moderate and fine weather. A. M. wind variable, E. by N. and at 4 A. M. east. P. M. wind variable, N. W. by W. calm, variable, E. N. E. and E. by S. Latitude, 15° 7′ N. Dec. 18th, A. M. moderate and fine, afterwards calm and cloudy. At noon calm and fine, afterwards light airs and cloudy. A. M. wind east, calm and variable. P. M. calm, and occasionally variable, then E. by N. Latitude 15° 32′ N.; longitude 60° 41′ W. 19th, A. M. light airs and cloudy. At 8 A. M. moderate and fine, and continued so during the day. A. M. wind E. by N. variable, and N. E. by N. P. M., N. E. by E. Latitude 16° 7′ N.; longitude 60° 45′ W. 20th, moderate and fine. A. M. wind variable, and occasionally N. E. by N. Latitude 17° 08′ N.; longitude 61° 35′ W. 21st, A. M. fresh breezes and cloudy, but occasionally clear. P. M. at first moderate and fine, then fresh breezes with squalls occasionally. A. M. wind N. E. variable, and N. E. by E. P. M., N. E. by N. Latitude 18° 20′ N.; longitude 62° 45′ W. 22d, A. M. fresh breezes and squally, moderate and

cloudy, and moderate and fine alternately. A. M. wind N
by N. and variable. P. M., E. N. E. and N. E. by E. L
tude 19° 39′ N.; longitude 63° 16′ W. 23d, A. M. fresh bre
and cloudy. At noon moderate and cloudy. P. M. light
At 5 30 P. M. squally. At midnight fresh breezes and clo
Wind N. E. by E. Latitude 21° 02′ N.; longitude 63°
W. 24th, A. M. fresh breezes and cloudy, at 8 A. M. mode
and fine. P. M. light breezes and fine. A. M. wind N.
by E. and E. by S. P. M., E. by N. and inclinable to be c
Latitude 22° 24′ N.; longitude 65° 38′ W. 25th, light
and fine. At midnight cloudy. A. M. wind E. by N. c
and again E. by N. P. M., E. by S. Latitude 23° 14′
longitude 65° 58′ W. 26th, light breezes and fine. A
P. M. moderate and cloudy. A. M. wind W. S. W. P.
variable. Latitude 23° 51′ N.; longitude 66° 15′ W. 2
A. M. light winds and variable, at 4 rainy, at 8 moderate
cloudy. P. M. light breezes and fine, then calm, and a
wards squally. At 4 moderate and cloudy. A. M. wind v
able. P. M., E. by N. calm, west and variable from 5 P.
Latitude 24° 52′ N.; longitude 66° 42′ W. 28th, A.
light breezes and cloudy. At 2h. 45m. squally; at 4 f
breezes and cloudy. At 8 fresh and fine. Wind variable
north occasionally. Latitude 25° 53′ N.; longitude 66° 45′
29th, moderate and cloudy, and moderate and fine alterna
Latitude 26° 47′ N.; longitude 68° 05′ W. 30th, A. M. m
rate and cloudy. At 8 fresh and squally. At noon fresh
fine. Latitude 29° 09′ N.; longitude 67° 45′ W. 31st,
derate breezes, and occasionally cloudy, attended with se
squalls. Latitude 31° 28′ N.; longitude 67° 10′ W. Jan
1st, 1816, fresh breezes and squally, accompanied with m
rain. Latitude 32° 05′ N.; longitude 65° 33′ W. Jan.
fresh breezes and cloudy; but occasionally moderate and
Latitude 31° 59′ N.; longitude 64° 39′ W. 3d, fresh bre
and squally. At noon arrived at Bermuda. Jan. 15th, a
A. M. sailed for England, with 76 marines (officers inclu
for a passage home, and arrived there on the 9th of Febr
1816.

On reading over the above journal, it would appear tha
wind was occasionally diametrically opposite to its usual direct
and was southerly when the disease was most prevalent.
ought likewise to recollect, that, previously, for some time,
weather had been more rainy than usual.

Does a considerable change of wind, attended with vari
weather, in tropical climates, any way contribute to produce

miasmata that are supposed to be one of the remote causes of this disease?

And, do the southerly winds, blowing from the land, carry them on board ships lying at anchor?

Or, is the great evaporation that happens after much rain of any effect in producing the disease?

An Account of the Number daily attacked with Fever, and the date thereof.

Date 1815.		No.	Date 1815.		No.	
November	3	1	December	17	3	
———	5	1	———	19	4	
———	23	2	———	20	1	
———	30	1	———	21	3	
December	3	1	———	22	1	
———	10	1	———	24	2	
———	11	1	———	25	1	
———	12	1	———	26	2	
———	14	7	———	28	2	
———	15	7	1816. Jan.	1	1	
———	16	7	———	10	2	
		30			22	Total 52.

A Short History of the Fever, and the Method of Cure adopted.

This fever, I think, may be divided into three stages.

The first stage generally commences with chills and heats alternately, horripilatio, accompanied with violent headach and vertigo, sometimes to such a degree, as to cause the patients to fall down suddenly senseless, without any previous indisposition. These symptoms are soon afterwards succeeded by delirium, wild and furious, very hot skin, frequent pulse, and very much thirst. At other times it commences with cold shiverings, which I have seen continue above twenty-four hours, (and perhaps they would continue much longer if not checked), with other symptoms, as they are described in the former reports. Pulse and skin frequently almost natural, but generally the pulse is above 100, somewhat hard and full; sometimes above 150, full, strong, and vibrating, but generally small and weak; tongue, face, and bowels, as formerly described; eyes suffused, wild, prominent, and as if they were going to dart out of their sockets, and very impatient of light; frequently of a shining glossy appearance, *The second stage* commonly commences about the second c third day, if the disease has not been checked by very powerfi evacuations.

This stage is characterized by vertigo, and headach very dee seated, great restlessness, or constant pervigilium, anxiety abo the præcordia and hypochondriac regions, and constant pain i the abdomen, increased upon the least pressure; frequent vo miting of a greenish or yellow substance; much thirst; a ve bitter taste in the mouth; and great oppression of strength pulse sometimes almost natural, at other times very frequen weak, and oppressed, almost impossible to count its pulsation face sometimes flushed, and then there is great pulsation of th carotid and temporal arteries; eyes of a shining glossy appea ance; heat of skin generally little increased; bowels obstinate constipated, but, when moved, the fæces excoriate the anus ar its vicinity. Sometimes, in this stage, the patient is affect with coma; is insensible of surrounding objects, and does n know his former associates, and others that he formerly was a customed to recollect; tosses and picks very often the bed-clothe imagines he sees various black spots upon them, and vario frightful appearances or spectres around him. At other tim he is apparently pretty well, and answers distinctly questions p to him, but wavers occasionally if he talks much; talks inc herently, and always says that he is very well, if asked concer ing his health; but his countenance is very wild, and expressi of great distress; and he complains very much if the abdom be gently pressed upon, and now and then of pain in the thora increased upon respiration. Towards evening there is genera ly a considerable exacerbation, accompanied with increased d lirium, and occasionally singultus; and, during the night, t patient often gets out of his bed before his attendants are aw of his intention, but falls down instantly senseless, like a corp Sometimes he rises out of his hammock, and *turns in* again w apparent ease. He is occasionally very much harassed w distressing pains in the lumbar regions, and extremities. La ly, the tunica conjunctiva oculorum appears of a yellow colo which soon extends all over the body.

The third and last stage of the disease.—In this stage the sl is covered with a dark yellow suffusion, and a great many la black blotches, particularly upon the breast and back; the tremities become cold; the skin is covered with a cold clam sweat; the abdomen becomes excessively painful upon the le pressure, accompanied with almost constant vomiting of a d yellow-coloured matter, and sometimes pure blood in la quantities. Sometimes the patient will answer distinctly questions put to him, and is not affected with delirium; but, in most cases, towards evening, he is affected with constant delirium, succeeded by coma; talks and mutters very incoherently; picks and tosses the bed-clothes; does not answer distinctly questions put to him, but talks of something else; for the most part he will give no answer at all. The features shrink; the countenance assumes a cadaverous appearance; the eyes appear as if sunk in their orbits; the teeth, gums, and lips are covered, first with a brown, afterwards with a black crust; and a disagreeable smell is exhaled from the body. Lastly, the pulse sinks; then singultus, tremors, subsultus tendinum, and laborious breathing, succeed. No pulsation is perceptible; the breathing gradually becomes more laborious and noisy; and death terminates the scene.

The method of cure adopted.—In the first stage of the disease large and repeated bleedings were instantly had recourse to, and strong cathartic medicines repeatedly given, until the bowels were freely evacuated. The bleeding was always continued until the urgent symptoms were considerably alleviated, to effect which frequently required the abstraction of 60 or 70 ounces of blood at one bleeding; and, in plethoric habits, even more. The more severe the symptoms were, so much the more blood could with facility be extracted without producing syncope. The venesections generally induced syncope, vomiting, and occasionally free evacuation of the bowels, though previously obstinately constipated, and no cathartic medicines could move them. As soon as the irritation of the stomach, caused by the bleeding, subsided, which generally happened in the course of one or two hours, a strong cathartic of calomel and jalap was given. In the evening, and in some cases in the middle of the day, if headach, heat of skin, and other symptoms of reaction returned, the venesection and cathartic were repeated, and very often 40 or 50 ounces more of blood could be extracted before fainting came on; but the bleeding was always continued until syncope was induced, and no more blood could be extracted. During the interval betwixt the bleedings, whenever the skin continued preternaturally warm, the cold affusion was now and then used, and the skin frequently sponged with cold water, whenever there was much pain. When cold shiverings continued for any length of time, (as often happened), the patient was immediately put into the warm bath, which soon put an end to the cold fit, and bled while in the bath. On the second day, if there was great determination to the head, evinced by a deep-seated headach, and great pulsation of the carotid and temporal arteries, accompanied with delirium, the head was shaved, and kept constantly wet with cold saturnine lotions, and blood taken from the temporal artery occasionally, but most commonly from the arm. In short, the bleeding was had recourse to as long as any considerable reaction continued, so that, in the course of three or four days, above 250 ounces of blood have been taken away, *and always with success, when timely application was made.* *

In the second stage, when coma supervened, and the skin had become of nearly the natural temperature, a large blister was applied to the nape of the neck, and occasionally to the crown of the head, and blood abstracted from the temporal artery. When there were symptoms of gastritis and enteritis evinced, by distressing pain, very much increased upon touching the epigastric region and other parts of the abdomen, accompanied with almost constant vomiting, and a very small, frequent, and oppressed pulse, bleeding was still had recourse to, though not so largely as at the commencement, betwixt 10 and 16 ounces being then the usual quantity; the warm bath and enemata cathartica were very often used; the carbonas ammoniæ was made into an effervescent draught, and taken in the act of effervescence, every second or third hour, to prevent vomiting; a very large blister was applied to the upper part of the abdomen, and the bowels were daily moved by the milder cathartics, such as ol. ricini; and about 10 grains of calomel were given three or four times a day, so as to affect the mouth and evacuate the bowels at the same time. Whenever the mouth became in the least tender, small doses of the sulphas magnesiæ or sodæ, dissolved in the aq. menth. piperit. were very often given, and astringent gargles of alum very frequently used.

In the third stage, when singultus was very troublesome, æther sulphuricus, to the amount of 30 or 40 drops alone, or combined with the mist. camphorat. I thought to be sometimes of a little service.

When the pulse began to sink, stimulants of various kinds were had recourse to, such as wine, and sometimes even ardent spirits; but nothing generally succeeded.

I am happy to say that I never saw the disease in its third stage, *provided timely application was made at the commencement,* and the *proper steps* taken to check its progress; unless, indeed, there was something peculiarly unfavourable in the constitution of the patient.

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* The blood that was detracted was measured, in every case, with one of the spitting-pots previously correctly measured; and no allowance is made for what was spilt, or for what came away during the time the vessel was being emptied. The blood was measured through curiosity merely, for it was detracted until urgent symptoms were removed, and not in certain measured ounces.

When the disease terminated favourably, particularly in those cases where the abdominal viscera were affected, I have seen, after venesection, the pulse become most remarkably full and frequent, but very soft; at first generally about 120 or more, then about 96, and afterwards gradually regular. *

Some of the 1st West India regiment, on our passage to Bermuda, were affected with this disease, and one of them, who is not included in this report, died on board. When I saw him, the disease was in its third stage; he was attended by the medical officers of the regiment. The previous treatment I am not acquainted with, only the evacuant plan was not pursued, he not having applied in time.

I have been the more particular in the history of this disease, (ardent fever), as it is almost the only one of consequence that I saw while I was on the West India station, and a disease I have several times been severely attacked with.

On the 23d of November last, at Antigua, I had a severe attack of this disease; and by the assistance of my friend Mr Espie, surgeon of his Majesty's sloop Dasher, the fever was completely subdued by venesection, but I nearly had a relapse during its prevalence on our passage to Bermuda.

On our passage to Bermuda, the captain and almost all the officers, and most of the midshipmen, were again severely attacked with this disease; but by timely application they all recovered, and are now in perfect health.

Although the small proportion of mortality that took place in the last fever of the Niobe, cannot be considered as detracting from the value of any particular practice* had recourse to in a severe epidemic; yet I am anxious that it should be understood that, in the fatal cases, venesection had not so full and favourable a chance of doing good as in almost all the other cases where it was employed.

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* This state of the pulse, when it was observed, came on about 12 or 24 hours after all bleeding was laid aside, and was always a favourable symptom; but when I felt it first, I was nearly deceived by it, and was going to abstract more blood, which I think would have done much harm. I desisted on the patient mentioning that he had no pain, and upon perceiving that he had rested well, and had a pleasant countenance.

On this account I subjoin a short notice of each of the case that terminated fatally.

Notes of the Six Fatal Cases.

Case I.—John Herrop, ætatis 34, of rather a spare habi and dark complexion. Had a severe attack of fever formerly. Was ill two days without complaining. First seen on 11th December. Evacuations were freely used after he applied, bu without effect, and he sunk on the 13th at midnight.

This man's case was remarkable, as being unaccompanie with the delirium, dark-coloured vomiting, and yellowness o surface, which were constant symptoms in all the other fata cases.

Case II.—Robert Williams, ætatis 20, of a sallow complexion, stout made, and somewhat plethoric; had been severely attacked with the 1st endemic that appeared in the Niobe and sent to the royal naval hospital at Antigua. This time h was indisposed for some time previously, without making application, until the 14th December, in the evening, when I foun him affected with the usual symptoms of pyrexia. In this case after application, the antiphlogistic regimen was most strictl used; but all efforts were unavailing, and he expired on th 19th December, at 7h. 50m. P. M.

Case III.—John Jones, ætatis 28, very stout made, abou six feet in stature, and stout in proportion, of a dark complexion, and somewhat plethoric. Was indisposed one whole day without making application; but had not been previously sic since I joined the ship. Complained, on the 15th December, o the usual symptoms of fever. With very great persuasion I prevailed upon him to allow me to detract only about 32 ounces o blood, and he would not afterwards consent to let any more b taken away; and at that time I was very much occupied, and ha not time to use much persuasion in order to induce him to submit, as I had others to attend to, who allowed themselves to b treated as I thought proper. He expired on the 19th December, at midnight. Some days before death he vomited a vas quantity of blood.

Case IV.—Joseph Hurst, ætatis 28, very much emaciated and addicted to intemperance. Was severely attacked with th first endemic that appeared in the Niobe, and sent to the royal naval hospital at Antigua, where his life was for some time despaire of. Was attacked on the 15th December with fever, accompanie with delirium. I only detracted about 20 ounces of blood at th commencement, and was afraid to take any more away, drea ing he would sink under the operation, and the remedy be disgraced, and thereby others be deterred from submitting to it. He expired on the 19th December, at 9h. 30m. P. M.

CASE V.—JOHN TAYLOR, ætatis 23, stout, red-haired, and plethoric. Was attacked, on the 15th December, with the usual symptoms of pyrexia. He was attended by the assistant-surgeon of the 1st West India regiment; but evacuations were not so freely used as I directed, and through fatigue and indisposition I was not able to attend him and some others as I would have wished. He died on the 23d December, at 9h. 30m. P. M. dreadfully delirious.

CASE VI.—BARTHOLOMEW RODGERS, ætatis 44, stout made, red-haired, and somewhat plethoric, and had been a long time previously in the West Indies. He was attacked with the first endemic that appeared in the Niobe, and sent to the Royal Naval Hospital at Antigua, where his life was some time despaired of. Had been indisposed for two or three days before I was informed thereof. December 16, when I first saw him, he was confined to his hammock in the lower deck, with symptoms of a severe fever. Though evacuations were pretty freely used, he expired on the 18th December, at 7h. 40m. A. M.

H. M. S. Niobe, March, 1816.

TABLE showing the number of cases of West India Fever treated by Mr Comrie, and the result of his treatment.

	Epidemic of the Raven.		
No. of Cases.	No. of Deaths.		Perfect Recoveries.
55	0		55
	First Epidemic of the Niobe.		
65	0		65
	Second Epidemic of the Niobe.		
52	6		46
Total 172	6		166

III.

Case of Enlargement of the Heart with Polypi, &c. which occurred on Board the Honourable East India Company's Ship Carnatic. By JAMES STEWART, Surgeon.

MAY 5th, 1816, WILLIAM COOPER, seaman, aged 30, middle stature, peculiarly full, broad chest, fair complexion, and plethoric habit of body; since leaving Bengal, about three months ago, has not enjoyed his usual state of health; appetite being variable, and a dull pain, or rather sensation of weight, under the ribs of his left side, frequently annoying him. These complaints were, however, so trifling, as not to prevent him from doing his usual duty. A few days ago, he was very suddenly attacked with a severe pain in the left hypochondrium, which was nearly removed by the operation of a smart purgative, followed by a diaphoretic. This morning it has again returned with increased severity, and now extends to the front of the left shoulder; not increased on pressure; pulse not accelerated, but full and strong; tongue furred, brown; considerable thirst; countenance pale, and features shrunk.

Capt. calomel gr. viii. pulv. jalap. ʒss. misce et applicat. emplas. lyttæ part. dolent.

May 6th. After the operation of the purgative and blister, the state of his tongue improved considerably, and the pain almost ceased.

Last night again, a severe exacerbation suddenly took place, and nearly as suddenly ceased, about seven hours afterwards. During the paroxysm, a draught of tinct. opii, and æther sulphur. was given him without any beneficial result. The situation of the pain had, however, now changed to the region of the heart; no pyrexia; general health little affected; pulse, to-day, 88, full and sudden, but perfectly regular. Detrahat. sanguis ad ℥xxiv.

May 7th.—Nearly free from pain all yesterday. During the night a smart exacerbation again occurred, and situated immediately over the region of the heart; sympathetic affection of his shoulder annoyed him much; cannot now lie on his left side, and feels most easy when leaning forwards, or lying on his breast with his arms extended, so as to enlarge the cavity of the thorax. During the attack of last night, his countenance was pale, and features shrunk, with increase of thirst, and foulness of tongue, but scarcely any change in the temperature of his skin, or state of his pulse.

Habt. stat. ext. colocynth. comp. et calomel āā. gr. vii. et repet.
V. S. ad ℥xvi.

May 11th.—Scarcely any pain in his arm since last report; but his shoulder has been extremely uneasy with a sensation of numbness, extending nearly to his fingers; he has been using stimulating anodyne liniment, without relief; tongue more foul; spirits unusually depressed; pulse 80, soft and regular; gave him yesterday seven grains of pilul. hydrarg. which procured three easy evacuations. Repet. pilul. hydrarg. et cont. liniment. anodyn.

May 12th.—Yesterday evening, had a slight increase of pain in his breast, with a most tormenting uneasiness in his shoulder and arm. Pulse was 86, more soft and natural than usual. Countenance and spirits were much depressed; foulness of tongue and thirst increased. Gave him gr. vi. calomel, and gr. v. pulv. scammon. which soon excited vomiting; about an hour after which, the medicine beginning to operate, he went upon deck, where he dropped down and expired without a struggle.

Sectio Cadaveris.—Upon opening the thorax, observed the pericardium prominent, and occupying a much larger space than natural; its cavity was found to contain about fifteen ounces of serum, with two ounces of coagulated venous blood, discharged from some of the small vessels on the surface of the heart, all of which were peculiarly enlarged and turgid. The heart itself was preternaturally large, weighing at least 2½ pounds. A small surface over the left ventricle, showed marks of slight superficial inflammation having existed, and around the exit of the aorta from the heart, an effusion of blood into the cellular substance, to the extent of about half an inch, had taken place. On examining the interior of the heart, the size of the cavities, columnæ carneæ, &c. corresponded with its external magnitude. The right auricle, right and left ventricles, contained each a large polypus, attached by three or four pedicles. The one in the right auricle weighed upwards of an ounce, the others about an ounce each. They were of a pale red colour, a solid firm consistence, and when cut into, presented a highly vascular and organized appearance, so that no doubt remained, or yet remains, on my mind, as well as the mind of another medical gentleman present, *that they must have existed a considerable time previous to death.* The one in the auricle was lying against the mouths of the cavæ, and consequently opposed to the course of circulation. That in the right ventricle, of an oblong shape, was carried by the current of blood into the pulmonary artery; the other was firmly bound down in the left ventricle by its pedicles. No other morbid appearance presented itself in the thorax. In the contents of the abdomen, nothing peculiar was observed.

This case I have wished to make known to the public, as presenting some symptoms which I conceive worthy of particular notice; and also as a case of Polypi, which, from their vascularity and perfect organization, must have existed for a considerable time previous to death. From the seat of the pain in the left hypochondrium, when he first applied for assistance, I conceived his complaints to arise from some visceral obstruction, the consequence of service in tropical climates. Its removal shortly afterwards to the region of the heart, and especially the occurrence of the sympathetic affection of the left shoulder and arm, soon excited suspicion that the *heart* was the seat of his disease; still, however, the pulse remaining at all times perfectly regular, and being seldom if ever accelerated, led to some obscurity with respect to the nature of his complaints, and doubt how to proceed in the treatment.

Larne, County Antrim, December 20th, 1816.

IV.

Case of Pneumonia, with Observations on the Practice of Bloodletting in that Disease. By William Gibney, M. D. Assistant Surgeon 15th King's Hussars.

November 25th.—Hugh Evans, private 15th Hussars, æt. 25; sanguineous temperament. This man has been these three or four days labouring under feverish symptoms, without reporting himself. Last night he became worse, being attacked with frequent cough, rigors, and headach. At present he has slight pain at the scrobiculus cordis, somewhat increased on inspiring, each inspiration being succeeded by coughing. His cough is unattended by expectoration, and is aggravated towards night; he has slight nausea and headach, which he attributes to the cough; his throat is somewhat sore, and he is a little hoarse; he lies well in any position, but with greater ease on the right side. Pulse 96, not full or strong; bowels costive; skin hot; face much flushed. He thinks his complaint arises from cold.

V. S. ad ℥xxxv.
℞ Extract. colocynth. comp. gr. x.
Calomelanos, gr. x.
Ft. pilulæ ii. statim sumendæ.

Pain relieved by the bleeding, which was followed by partial syncope, sickness at stomach, and frequent yawning; headach diminished; at present inclined to perspire.

26th.—Slept tolerably well, yet has still slight pain on inspiring; cough rather looser; skin still hot, and face flushed; sweated a good deal; three stools; pulse 90, and stronger than last night; hoarseness considerably diminished.

V. S. ad animi deliquium.

Full 47 ounces of blood were drawn without producing fainting; yet the pulse sunk to 80, and became very feeble. Immediately after, he expressed himself considerably relieved, although very sick at stomach. In the evening he was still better, with no pain, and but slight cough; perspired a good deal. Blood slightly buffed.

Habeat pulv. antimonialis gr. iv. h. s.

27th.—Still better; copious expectoration; no pain of chest or head; pulse 80, of natural strength; sweated a little; belly inclined to be costive.

Habeat pil. purgant. i. statim.

28th.—Improves; no return of pain; cough nearly gone; functions natural; pulse 72.

Habeat pulv. antim. gr. iv. h. s.

29th.—Nearly well; is to-day up, doing part of his duty, and only complains of slight weakness in his knees; belly open; pulse natural.

No medicines.

2d December.—Continued gradually to recover his natural strength; and he this day returned to his duty.

This case strongly exemplifies the necessity of a sudden and copious detraction of blood in cases of pneumonia; and it will show, that neither the weakened state of the pulse, nor the apparent mildness of the symptoms, are, in pulmonary diseases, to prevent us from immediately pursuing active measures. This man's pulse was, from the commencement, neither quick (comparatively speaking), nor yet so full and strong as to indicate violent inflammation. The pain too, on inspiring, was not so acute as it generally is in cases of pneumonia. He had not much difficulty in lying in any position; his appetite was still good; he had no debility; he slept well. In fact, there were no functions so completely disordered, as would have led one to suppose that inflammation was making rapid progress. Indeed, the disease more resembled a case of common catarrh than of pneumonia.

I was, then, in a great measure, guided in my practice more by external appearances, as, the heat of skin, furred tongue, flushed face, so peculiar to pneumonic patients, &c. and by the report of others concerning his recent intemperance, than by the urgency of the symptoms. Indeed, his history of his ailment was so imperfect, that, were it not for these collateral circumstances, I should hardly have ventured upon bleeding him. Although I conceived that inflammation had not yet made much progress, yet, by allowing these incipient symptoms to increase, I thought the result might be attended with unpleasant consequences, if not a fatal termination. I was determined, then, to bleed him copiously, which I did until syncope had supervened.

On seeing him next morning, (for he was bled the preceding night), he expressed himself wonderfully relieved, yet he had *still* slight pain on inspiring, and headach when he coughed. From former experience, I thought a further delay, under such circumstances, might render the case still more precarious. I judged it best, then, to continue the bleeding, notwithstanding his repeated assertions of his being *much better*. I feared, when the vessels recovered their tone, that the lungs, being still susceptible of inflammation, might be yet easily affected. I was determined to reduce the action of the heart and the arteries to such a degree, by a *second* bleeding, as to render further mischief to the lungs improbable. I was encouraged in this by finding the pulse rather stronger than on the preceding night, by observing that there was *still* some pain on inspiring, or, in fact, by finding that the most urgent symptoms had not *altogether* vanished. The event fully answered my expectations.

I took, in the second bleeding, *full* 47 ounces of blood, without producing fainting. Indeed, this copious depletion was only followed by slight vertigo and vomiting, and he bore it much better than the first. From the history, too, of this case, it may be observed, not only how necessary it is to bleed copiously at the outset, but also how expedient it is to follow up the practice at *a short interval*, where there is not an evident and great abatement of the most urgent symptoms. This decisive mode of proceeding is more particularly necessary in pulmonary complaints, where organs of such vital importance are concerned.

It is astonishing what rapid progress inflammation will make in the lungs in a short period, more so, I think, than in any other organ. We should, indeed, be almost constantly in the room with a pneumonic patient; as there is no disease, where the increase or decrease of bad symptoms is more apparent than in inflammation of the lungs, and certainly no complaint where a prompt decision is more requisite. A few hours may decide the result; so that if, in four or five at most, after the first bleeding, there be not an evident diminution of disease, I would recommend it as a rule to draw blood again as copiously as at first, or at least until the pulse has so far sunk as to render a recurrence of the disease improbable. As to mentioning the specific quantity to be drawn, it is absurd. You are to stay by the bedside of your patient, keep your finger on his pulse, and let the blood flow until there is an evident and most decisive change for the better; until the pulse become slow and feeble; until the flush of the face is nearly gone, and in most cases until syncope supervenes. The fears of your patient, his expressions of benefit, and the apparent great quantity already drawn, are not to deter us from proceeding; for we should always remember that the danger of losing much blood is by no means so great as the danger of the disease. The buffed appearance, too, of the blood is a fallacious criterion to go by, when we wish to repeat the depletion. In Evans's case, it was, in the first bleeding, of a natural appearance, and in the second but very slightly buffed.

This case likewise shows how much blood we can take from a man of strong constitution, and gross habit of body. In the space of sixteen hours he lost 82 ounces by measure; and so far was the first bleeding from weakening him, that he sustained a loss of 47 ounces in the second, without producing syncope, and with no further inconvenience than a slight vomiting. Indeed, so far from any debility existing after this great depletion, the man actually asked my permission to do all his duty two days after the second bleeding, which, however, I did not think proper to grant. I am aware, however, there are constitutions otherwise healthy, which could not bear so copious a depletion, and that we are to regulate our practice accordingly; yet I think there are few men of the weakest constitutions, who will not bear a loss of 30 ounces of blood in pneumonia, and that too with evident advantage. I recollect, this time twelve months, attending the steward of a gentleman in France, at whose house I was quartered. This man had been three days ill with pneumonia, and was ordered weak broth and confinement by the provincial surgeon who attended him. He became much worse, and I was requested to see him. He was dangerously ill, and had not had passage in his bowels for three days, nor would his surgeon give him any opening medicine, until (as he said) the fever had subsided. I bled him that night to the amount of 32 ounces, next morning was again obliged to take 30, and again the morning after to draw 20 more; so that in about thirty-six hours he lost 82 ounces of blood. He fainted after each bleeding, so that I drew less than I otherwise should have done. This man was scrofulus, of a very weakly constitution, and had but one arm. I fear the *supposed* danger of inducing too great debility, has often deterred practitioners from taking as much blood *at once*, as the danger of the disease requires. Yet I am convinced such danger is imaginary, not grounded upon facts, and most frequently the result of theory in the hands of timid practitioners. The *immediate* debility induced by one or two *large* depletions, is by no means so great, at least certainly not *so permanent*, as that which is produced by several small bleedings, superadded to the length of confinement, with which the latter are always followed.

At this time (December 1816), pulmonary complaints are more or less prevalent amongst the soldiers at Shrewsbury. In every case where there is a slight, though evident determination towards the lungs, I bleed largely at first, which in the end generally supersedes the necessity of a second bleeding, and saves much anxiety to the patient. I have indeed seldom to repeat the operation, unless the patient faints before a sufficient quantity is drawn at the commencement. I have at present a soldier sick with pneumonia, where the pulse was never, from the beginning, more than 90, and extremely feeble; yet, from other circumstances, I was induced to take 25 ounces of blood from him, which induced fainting. In six hours after, he was, as he said, 'much better;' yet he had *still* some pain, and could not lie easily on his right side. His pulse was rather stronger than before, so I immediately bled him again to the amount of 30 ounces, which depletion he bore much better than the first. This man is 25 years of age, of a very weakly constitution, and has but just recovered from a course of mercury.

I have thus, gentlemen, sent you a few observations on this case of pneumonia. They are perfectly at your disposal. The practice is that pursued at present by almost every surgeon in the army. Perhaps soldiers require a more vigorous treatment than civilians, at least they are more subject to acute diseases. From the rules, too, of the service, you seldom find men of very weakly constitutions, so that perhaps the practice here recommended cannot be carried to so great an extent in private life, without injury to the practitioner's character; yet I am convinced the *principle* is good; and I think we should not see so many cases of phthisis and other sequelæ of pneumonia, were medical men more cautious in superintending the venesection in this disease, instead of *mechanically* ordering a certain number of ounces to be drawn, and leaving the rest to the apothecary.

In Evans's case, I used but few other remedies except the bleeding, as a military medicine chest is rather curtailed; and, indeed, I am convinced, no medicine will avail unless bleeding is carried to a proper extent. The purging pills I ordered may appear too strong; but that formula I find gripes less, and opens the bowels better than when a smaller quantity is used.

Shrewsbury, December 5, 1816.

V.

Reflections on the Arrangement of Cutaneous Diseases; with the suggestion of a Practical and Diagnostic mode of Classification. By Marshall Hall, M. D. &c.

The object of every arrangement in natural science, is to render the knowledge and distinction of the subjects of which it treats, easy of attainment. In medicine, and in the difficult department of cutaneous diseases especially, that mode of arrangement must be deemed most eligible, by the aid of which their discrimination or diagnosis is most promoted. Considering diagnosis, therefore, as the great object to be forwarded by means of the classification of diseases, a few reflections on the arrangement of the cutaneous affections, with an immediate view to their discrimination, may not prove uninteresting to the readers of the Medical and Surgical Journal.

It is impossible to revert to the subject of cutaneous diseases, without making a direct allusion to the splendid and valuable labours of Dr Willan, and of Dr Bateman, in this department of medicine. Perhaps the only defective part of the works of these authors is their classification; and to their classification there are numerous and serious objections.

It is unnecessary to state, except for the information of some of your continental readers, that the arrangement of cutaneous diseases adopted by Dr Willan, is founded on a principle similar to that of Plenck; a work with which they are still more acquainted than with that of the former writer. * This classification comprises eight orders; 1. Papulæ; 2. Squamæ; 3. Exanthemata; 4. Bullæ; 5. Pustulæ; 6. Vesiculæ; 7. Tubercula; 8. Maculæ.

But, to form an artificial arrangement of cutaneous diseases, on the plan of Plenck or Willan, it is necessary to assume tha the different genera and species of cutaneous affection are really and purely papulous, scaly, exanthematous, pustular, vesicular, &c. It is, however, well known, that the cutaneous disease are frequently, nay, generally, of a double or mixed character papulæ or vesicles being coexistent with exanthema, pustule with vesicles, &c. From this circumstance, a sort of contradiction is frequently implied, either in the arrangement itself, i the specific denomination of the affection, or in both. Consistency of classification sometimes demands, too, that the sam genus of cutaneous disease shall be arranged in different orders from the occurrence of some difference or variety in its form This point is illustrated by a reference to the arrangement of th Eczema impetiginodes, the Ecthyma, and Rupia. And it is impossible not to observe, that the objection urged against the arrangement of Plenck, exists also in full force against that of D Willan. 'Such a classification,' it is stated, 'must fail to answer its end, because it requires the different stages of the sam disease to be considered as so many distinct maladies, and to b arranged in several classes.' See the preface to the Synopsis Cutaneous diseases, p. xi. Now, at p. xv. of the same preface we are informed, in reference to the classification of Dr Willan that 'diseases which commence with one generic character, ar liable occasionally to assume another, in the course of their progress:—thus, some of the papular eruptions become scaly, an still more frequently pustular, if their duration be long protrac ed; the Lichen simplex and circumscriptus, for instance, some times pass into Psoriasis; the Lichen agrius and Prurigo form cans are occasionally converted into Impetigo; and the Prurig mitis is changed to scabies.'

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* M. Alibert told me, when in Paris, that he *understood* that two English physicians had *also* treated the subject of cutaneous diseases!

Such objections are, however, in the estimation of the writ of this paper, of very little importance; inasmuch as they rela more to the discussion concerning nosology and nomenclatur than to the accurate and practical diagnosis of cutaneous di eases, the only point, respecting their arrangement, of real m ment. There are other objections, however, to an artificial a rangement of cutaneous affections, of a more serious natur namely, such as constitute an obstacle and impediment to the tainment of the object of all arrangement,—discrimination. F an artificial classification, of any kind, inevitably separates aff tions which agree in *general similarity*, and which are, consequen ly, of difficult diagnosis, when they do not happen to coinci in that particular feature or circumstance, on which the classi cation is founded. For instance, how difficult is the distincti between Variola and Varicella; between Lichen, Scabies, Impe go, and Eczema; between Ecthymia and Rupia! And yet these similar affections, requiring such accurate examination, comparison, and contrast for their diagnosis, are severally separated, and arranged in different and distant parts of the classification of Dr Willan.

In fact, the arrangements of Plenck and Willan may be aptly compared to that sort of symptomatic arrangement adopted by Sauvages and Cullen, in some parts of their systems of nosology, as in the Dolores, Debilitates, Spasmi, &c.—a mode of classification which must necessarily separate the similar, and assemble and unite dissimilar and discordant affections. The terms papula, squama, exanthema, &c. are, in effect, merely denominations for symptoms which *characterize*, but do not constitute, diseases; and which are frequently, as has been observed, coexistent or consecutive in the same disease.

An objection might also be raised against the use of the term cutaneous; first, because many of the diseases noticed in Dr Willan's arrangement are not strictly cutaneous, but principally because the employment of this word has led to the omission of some affections of the surface of the human body, having great *affinity* with the cutaneous diseases, and highly deserving of fresh examination. Such, especially, is the order of ulcers, which is nearly allied to some of the genera of the Bullæ, Pustulæ, and Tubercula; and the works of Corvisart and Pinel give us sufficient cause to hope that no future writer will be guided, in treating or classifying disease, by the particular textures of the human body, or its organs supposed to be affected.

From all these considerations, it appears desirable that some mode of arrangement less liable to objection, and, what is of infinitely greater importance, more *practically useful*, could be devised. With the view of promoting the important object of the discrimination of diseases, it is thought that it would be of the greatest utility to arrange cutaneous diseases on the principle of *general similitude*,—a principle calculated to correct many of the imperfections of an artificial arrangement, to unite many of the advantages of classification in general, and especially to promote its main object—diagnosis.

For, in this manner, the acknowledged objections to the arrangements of Plenck and Willan are obviated. Diseases similar in general, and, therefore, liable to be confounded, mistaken, and mistreated for each other, are brought together into one class or order, and admit of being aptly and advantageously compared and contrasted, with a view to their distinction. In this manner, too, the particular difficulties in the diagnosis are pointed out in a way calculated to arrest the attention, and excite inquiry into the points of discrimination; and in thi manner much important information is conveyed relative to th general form, appearance, and duration of the different affections, the characters of which are thus made mutually to illustrate each other.

If it were necessary to add any other circumstances in recommendation of this mode of arrangement of the cutaneous diseases, it might be stated, that it is particularly adapted to certain cases where the specific or generic character of the affectio cannot be distinctly ascertained; for 'the natural progress many eruptions is to assume a considerable variety of aspect, that it is only at some particular period of their course th their character is to be unequivocally decided. Thus, in th commencement of the Scabies papuliformis and lymphatica, th eruption is of a vesicular nature, although its final tendency is the pustular form. And, on the contrary, in all the varieties Herpes, the general character of the eruption is purely vesicula yet, as it advances in its progress, the enclosed lymph of th vesicles acquires a considerable degree of opacity, and might b deemed purulent by cursory observers. In like manner, th original pustular form of the Porrigo is frequently lost in th accumulating crusts, the confluent ulcerations, or the furfuraceous exfoliations which ensue, and which conceal its true nature from those who have not seen and are unacquainted wit the whole course of its advancement.'—Preface to the Synopsi of Cutaneous Diseases, p. xvi. In such cases, as in a multitud of others, the general appearance of the disease must determin at once its nature and its arrangement.

In adopting the mode of arrangement proposed, the mind i also at perfect liberty to perceive the real appearances of disease, such as they present themselves. Those who have mo studied cutaneous diseases according to an artificial classification, will be best aware of the tendency in the mind to set a undue and artificial value on the particular circumstances o which the arrangement is founded, to the neglect or exclusio of other particulars not less important in themselves, but rendered less so by being less essential to the particular mode classification employed.

In arranging cutaneous diseases on the principle of gener similitude, it may occasionally occur, that some particular affe tion is so peculiar in its form, and so different from any othe that it may occupy an insulated station in the classification. I such cases this important information is conveyed, namely, th the disease in question is not liable to be mistaken for any othe no other being arranged with it. And thus a circumstanc which might be deemed an imperfection in the mode of arrangement proposed in the eyes of the philosophical nosologist, is really the means of imparting important instruction. On the other hand, as the same affection, in its different forms, or in different stages of its progress, may resemble two or more distinct and dissimilar genera of cutaneous disease, it is deemed advisable to arrange it in two, or even more, distinct parts of the classification, according to these similitudes, when the diagnosis can be promoted by such a mode of proceeding, and thus make the sacrifice of appearance for the sake of utility.

According to this mode of arrangement, the terms Strophulus, Lichen, &c. will be employed to denote the genera of cutaneous disease, whilst the words Papula, Squama, &c. will be used in the sense of their several definitions, as characteristic and expressive of the appearances or *symptoms* of the different affections of the skin; and, probably, the employment of these, or similar terms, *specifically*, might be more frequent, and the general denomination be thus further characterized, and made, as in chemical nomenclature, to convey definite ideas of the nature or appearances of the different species of cutaneous disease.

In exemplification of the mode of arrangement proposed in this paper, the following hasty sketch of a classification of the genera of cutaneous diseases, is offered for the consideration of the medical reader. The general similitude between the species of cutaneous affections may also be denoted by a modification in their arrangement of a similar nature. Their affinity may be further pointed out, too, by attaching to them certain characters or ciphers, according to their similarity in external form and appearance.

I.—The Acute Cutaneous Affections,

Order First.

1. Scarlatina.
2. Rubeola.
3. Roseola.
4. Urticaria.
5. Strophulus.
6. Purpura,

Order Second,

1. Erythema.
2. Erysipelas.
3. Herpes.
4. Eczema.
5. Miliaria.

Order Third.

1. Variola.
2. Varicella,
3. Vaccinia.

II.—The Chronic Cutaneous Diseases,

Order First.

1. Lichen.
2. Prurigo.
3. Scabies.
4. Impetigo,
5. Eczema.
6. Ecthyma.
7. Rupia.
8. Pompholix.

Order Second,

1. Acne.
2. Sycosis,

3. Porrigo.
4. Pityriasis.
5. Ephelis.

ORDER THIRD.

1. Lepra.
2. Psoriasis.
3. Icthyosis.
4. Verruca.

ORDER FOURTH.

THE SPECIFIC ULCERS.

III.—The Local Cutaneous Affections.

ORDER FIRST.

1. Aphtha.
2. Herpes oris.
   ——— labialis.
   ——— anginosa.
3. Other affections of the mouth or throat. *

ORDER SECOND.

1. Herpetic ringworm.
2. Impetiginous ringworm.
3. Porriginous ringworm.
4. Psoriasis gyrata, &c.

ORDER THIRD.

1. Psoriasis palmaria.
2. Psoriasis diffusa. †
3. Eczema or impetigo ‡ on the back of the hand.
4. Eczema solare.
5. Scabies, &c.

ORDER FOURTH.

1. Psoriasis.
2. Prurigo: And
3. Other affections of the pudenda.

ORDER FIFTH.

1. Herpes preputialis.
2. Other affections of this part.

By casting the eye over this classification of cutaneous diseases, how much information, of advantage in the study of their diagnosis, is acquired! We learn, at once, that Scarlatina, Rubeola, Roseola, Urticaria, Strophulus, Lichen, &c.; that Lichen in its inveterate form, Prurigo, Scabies, Impetigo, Eczema, &c. mutually resemble each other in different instances, are liable to be confounded together, and require the utmost attention for their discrimination; that Varicella, Vaccinia, Herpes, Rupia, Miliaria, &c. brought together on the principle of artificial classification adopted by Dr Willan, are not thus mutually similar, although they agree in a point of classification and nomenclature; and that they are not, therefore, liable to be confounded together.

This arrangement alone, too, furnishes a useful plan and order, according to which those who are about to begin the study of cutaneous diseases may pursue the inquiry; for they will thus be gradually conducted from one cutaneous affection to that which most resembles it, and led to recognise and distinguish them; for slight differences between similar objects are best perceived by their approximation.

The arrangement proposed may be compared to the natural, in opposition to the artificial classification in botany. The for-

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* Willan's Reports of Diseases in London, pp. 3, 11, 17, 35, 37, 100, 111, 113, 202, 287, 288, 300.

† The baker and washerwoman's itch.

‡ The grocer and bricklayer's itch.

mer assembles in one class plants of general similitude. Like the latter, the classification of Plenck brings together objects agreeing in one particular point indeed, but whose general appearance is altogether dissimilar. And how is the student to identify the objects of his research, when the blossom is shed, or when the original character of disease has passed away?

Nov. 10, 1816.

VI.

Remarks on the Preservation of Lime-Water. By H. Dewar, M. D., Fellow of the Royal College of Physicians, Edinburgh.

Dear Sir,—Considering the present mode of preserving lime-water as susceptible of improvement, I shall, in a few words, communicate to you my observations on the subject, that, if you see proper, you may insert them in the Edinburgh Medical and Surgical Journal.

According to the plan usually followed, the water, after being impregnated, is filtered, and put up in large bottles, from which it is removed to smaller ones from time to time, as it is needed. These smaller bottles are still of such size, that they must be repeatedly opened and stopped before their contents are exhausted. This evidently brings along with it the frequent admission of atmospheric air, in quantities proportioned to the space left above the solution in the bottles. Hence we generally find the bottle in common use is more or less dimmed with a precipitate of carbonate of lime, formed by the carbonic acid of the atmosphere, which renders the solution turbid, and gives us reason to conclude, that it must be impaired in strength.

Wishing to have a quantity of good lime-water constantly at hand, for the sake of experiments, I have found the following method completely satisfactory. Instead of filtering the solution, to keep it in contact with a quantity of quicklime, in a tall wide-mouthed bottle, and to decant from the upper part, as much as is at any time wanted; to fill the bottle immediately again with water, and shake it in the same manner as when the lime-water is first made. This excludes all carbonic acid, and affords a fresh supply of the solution. It is preferable to the plan of keeping quicklime bottled up in a dry state, which is apt to break the bottles, and, when at any time exposed, exhibits a more extensive surface to the action of carbonic acid.

When the simple plan now described is followed, even though precipitation by the carbonic acid should, in a slight degree, take place, the solution thus weakened is quickly resaturated by the presence of the quicklime. Thus it is always kept in its strongest state, and may be obtained perfectly limpid. The trouble of inquiring frequently for fresh burned limestone, which, in some situations, may be considerable, is avoided, as well as that of filtering. This would, indeed, be a paltry recommendation, were it not that the trouble is of no utility, every object being more advantageously obtained without it. The filtering, besides, implies a degree of exposure which must be injurious.

I can conceive no objection to which this little plan of chemical and pharmaceutical economy is liable. On the contrary, I trust that it requires only to be mentioned to have its advantages appreciated, and to be generally adopted. Apothecaries and druggists may keep their stock in very tall and wide-mouthed bottles, with quicklime at the bottom, from which it may from time to time be drawn off, either by the use of a syphon, or by careful decantation, and put aside in vials containing the quantities most generally asked for.

George Street, Edinburgh, Dec. 3, 1816.

VII.

An History, with Remarks of an Aortal Aneurism, conjoined with a Pulmonary Phthisis. Extracted from a Clinical Lecture, delivered February 10, 1817, by GEORGE PEARSON, M. D. F. R. S. &c. in a Letter to ANDREW DUNCAN, Sen. M. D. Professor of Physic, &c. &c.

CHRISTIAN MERLHOFF, aged 34 years, a native of Piedmont, a bassoon performer in the army, was received into St George's Hospital, December 25, 1816. He declared repeatedly that his health was perfect in September last, when he arrived in England from Canada. Without any assignable cause, illness commenced in the latter part of November, and not earlier. According to the account given, he was first attacked by a pneumonic affection, especially of the left lung, having acute pain of the left side, oppression about the heart, cough, dyspnœa, and expectoration, with chilly, hot, and sweating fits, as well as debility, and other symptoms, occasioning confinement in bed.

On admission, the patient seemed to be in a dying condition, so that no distinct disease could be ascertained. The dyspnœa was considerable, but the weakness seemed to be so great, that he was unable to expectorate, and only made efforts to cough. The beating of the heart and pulse at the wrist were very feeble, but synchronous.

Wine, cordial medicines, and nutritious matter were ordered, merely to palliate and support life.

Contrary to my expectation, strength was gradually recovered. The breathing became easy while recumbent on the back; could also lie on either side, but not comfortably; became able to cough and spit up much muco-purulent matter. The pulse was between 80 and 90 in each minute, but sometimes not more than 75; the tongue from foul became clean; little complaint was made of pain of the region of the heart, but there was a feeling of obstruction in its pulsation. The countenance looked materially better in four days' time. However, on the 30th December, there was much pain of the left side, and a good deal of difficulty in breathing, with frequent coughing. The wine and cordial medicines were discontinued.

Blood-letting to 10 ounces was ordered; a purging draught; a blister to the left side; and an opiate at night.

The pain of the left side continuing, although the dyspnœa was relieved, the blood-letting was repeated; but the blood was not buffy.

In addition to the pleuritic pain, much complaint was made of pain between the shoulders. The painful feelings subsequently to about the 7th January, were confined to the region of the heart, which increased, the hand being frequently applied to it to denote the seat. More and less sputum continued to be coughed up; weakness increased; blistering plasters were repeatedly applied, and, from the urgency of the pain, also blood-letting; but the blood was never sizy. Ipecacuanha, squill, opium, and demulcent medicines, were the internal medicines recommended.

From the 20th January, all the symptoms grew more and more unfavourable; then much distress was denoted by the countenance; great restlessness; the body was often desired to be raised, and also bent forward from time to time, to relieve the anxiety and painful feelings of the chest, but the weakness confined the patient generally to lying upon the back; the respiration grew quick; the cough more troublesome; the sputum as before; the appetite for food totally failed; and the thirst, with foul tongue, increased.

One night, in a fit of delirium, the sufferer suddenly got out of bed, and walked about the room, saying he 'was now well.' It was particularly observed, that the pulse varied only between 80 and 90, excepting rarely under this rate. It had been also observed, that no morbid action took place of the heart, excepting a little throbbing.

On the 31st January, in the evening, during a slight coughing fit, a little blood was expectorated with the muco-purulent matter; and the patient expired almost without a struggle.

Dissection.—About 16 hours after death, the chest was opened. The lungs appeared of a whitish colour, like those of brute animals which die by hemorrhage, as commonly seen in butchers' shops. There was less charcoal than common on the exterior parts, but the bronchial glands were black as usual. The left lung was contracted to nearly half its natural bulk; it felt firm instead of spongy, and totally sunk in water. The right lung filled the cavity of the thorax; was extremely light; contained much air, which readily passed from one part to another by slight pressure. To the extent of several square inches, blood was effused under the pulmonary pleura, from a blood-vessel, probably ruptured on the surface. Though double the bulk of the left lung, it weighed rather less, *namely*, 14 ounces. There were no adhesions nor membranes thickened in the thoracic cavities; but there was about half a pint of serum in the left cavity: in the right was most unexpectedly found a large quantity of *black* blood, slightly coagulated, amounting to about two pounds, besides half a pound of serum. This blood, after standing exposed to the air 12 hours, exhibited a thin stratum of *red* blood on its surface, as in the case of venous blood so exposed and coagulated.

The pericardium contained four ounces of water. The heart was in its usual position, and of its common form, magnitude, and consistence, weighing nine ounces. Its cavities were almost entirely without blood; and the interior structure was healthy. The right lung being cut into pieces, was seen in a sound state; but it contained very little blood.

The left lung was also found almost bloodless. The air-tubes were filled with pus throughout; and innumerable tubercles, of the size of pepper corns, were found in the substance of this viscus; but there were no vomicæ nor large masses of coalesced tubercles, nor masses of condensed lung without tubercles.

Some of the blue and black bronchial glands contained chalk-like concretions which appeared on a slight examination to consist of phosphate of lime, with a little phosphate of magnesia and carbonate of lime.

The source of the effused venous blood was the next object of inquiry. It was discovered to be from a large aneurismal cyst of the aorta, just below the descending arcade. This cyst, several inches in width and breadth, had been burst in its superior part; and so had the contiguous membranes of the posterior mediastinum into the right cavity of the thorax; and of course the gush from an aperture nearly two inches wide, instantly drained the lungs and heart of their blood; probably, too, blood was transmitted through the lungs for a very short time after respiration had ceased, and hence the great quantity of effused venous blood. In the ruptured sac was contained a firm reddish coagulum of a roundish figure, which, being easily detached, was found to weigh eight ounces. It consisted of laminæ or leaves, which, with little trouble, were separable, of such tenuity as to be semitransparent. By maceration in cold water they became white. Depositions of the self-coagulable, or live lymph of the blood, had probably successively taken place from the bottom of the cyst, in an horizontal position, till the large mass of layers occupied great part of the cavity. It was remarkable, that the coagulum had received part of its exterior form, apparently from pressure, on the 2d, 3d, and 4th costal vertebræ, over which the sac extended. The inside of the aneurismal aorta was coated with self-coagulated lymph to a great extent, but a large part was abraded so as to be quite transparent, and in that portion the rupture was produced.

The arch of the aorta did not seem diseased, but the descending aorta, at its mouth in the sac, was cartilaginous and thickened, so as to be annular, and the vessel was contracted for several inches in length in its descent, with rugæ within side in the contracted part.

A most striking effect of the pressure of this aneurism was the entire disappearance of the osseous matter of the anterior part of the 2d, 3d, and 4th dorsal vertebræ, although the cartilages remained whole: thus leaving large cavities from the loss of bone between these cartilages by absorption. The absorption of bone, but not of cartilage, although subject to equally great pressure, was noticed as a curious pathological fact. As the large sac with its coagulum was situated, one might have expected injury to the contiguous organs from pressure; but they escaped unhurt, seemingly from their yielding and distensile nature. Accordingly the heart, lungs, trachea, &c. before death, appear to have been undisturbed by the aneurism, and subsequently no altered structure was observed, except the state of the left lung, just noticed.

Remarks.—1*st*, Taking for granted, from the history, that a pleuro-peripneumonia subsisted in November, it was thought most probable, from the symptoms, that this disease had produced the pulmonic affection, the subject of my treatment; but for want of diagnostic symptoms, it was only a matter of conjecture, that the disease might be either water in the chest, or condensation of the lungs, or tubercles. Of aneurismal affection not one of numerous observers, many of whom are not tyros, who had paid daily visits for six weeks, suspected such a disease. The circulation was carried on as regularly as in health, and with no considerable augmentation; although there was a dilatation, with great disease, of a large part of the grand artery, containing a coagulum weighing eight ounces, situated directly under, or very near, to the basis of the heart. The sufferer was questioned very particularly concerning the time and progress of the illness; but it could not be discovered that there was any disorder previously to the month of November, yet the aneurism must in all reason have been forming from a much earlier period. It seems, however, true, that, notwithstanding the great improvements in the pathology of diseases of arteries, we have not yet observed the symptoms which, in numerous instances, manifest their presence. To my knowledge, a case occurred, which was treated, without the least suspicion of aneurism, by a very experienced and accurate physician, one of the first anatomists in London, in conjunction with another physician of still longer experience. The disease was considered to be a pulmonary affection, with disorder of the liver. The patient died suddenly. On dissection, the pericardium was found full of blood from the rupture of aneurism of the ascending aorta; the lungs being perfectly sound; but the liver was diseased. I understand that two aneurismal cases lately fell under care in the hospital, not suspected to be such during life. One of them was of the *arteria innominata*, in which the blood was effused into the right cavity of the thorax. The other was aneurism a little below the curvature of the descending aorta; the adjoining parts were diseased, so that the blood was effused into the left bifurcation of the trachea, and, of course, into the left lung. In future these examples may lead to observations by which this arterial disease can be distinguished. No one thought of inquiring whether or not there was pulsation in the posterior part of the thorax; although it is not probable, from the seat of the tumour, any such symptoms would have been perceived. When the patient is able to walk, some information may be obtained by attending to the action of the heart and pulse at the wrist after bodily exertion.

2*dly*, The coagulation in the form of laminæ seems to have taken place from the bottom of the sac, by successive depositions of the self-coagulable lymph horizontally; yet leaving very sufficient space for the transit of blood: hence there was no inflammatory action to occasion sizy blood, nor to accelerate the circulation. This large coagulum no doubt distended the artery; but the artery itself was much diseased; so that, in the superior part of the aneurism, the coats were eroded, till at last a moderate exertion occasioned the rupture.

3d, I see no way of accounting for the diseased state of the left lung, but by referring it to the pneumonic affection in November and December; a very common sequela of which is a tuberculous state; but, what is unusual, not being accompanied by condensation, nor by thickening of the pleura membranes, nor by adhesions; also the tubercles were of an equal size, small and granular. No vomicæ were found, because the patient did not live long enough for the tubercles to coalesce and suppurate. It is also a rare case to find the air tubes filled with pus secreted from the membranes, without any breach of the coats, and unaccompanied apparently by inflammation; although it is ascertained, and now generally admitted, that pus is secreted from membranous surfaces without ulceration. If the patient had not been destroyed by the hæmorrhage from the aneurism, he would, in all probability, have died by pulmonary phthisis in the course of the winter or spring.

The respiration must have been carried on by means of one lung only for some weeks, and with less dyspnœa than might have been expected, and seemingly with little impediment to the pulmonary circulation. No symptoms manifested this disease of the lungs. This will not be, however, matter of surprise to persons of much experience, who have found that tubercles, like other extraneous bodies, in certain constitutions, take place, and subsist for a long time, without producing any observable distinguishing symptoms; especially when some other more urgent disease is present, as in the case under explanation. The dyspnœa and muco-purulent expectoration, were too equivocal to denote the secretion of pus in the bronchial tubes.

4th, Notwithstanding the vicinity and connexion of the heart with the aneurismal tumour, this organ does not appear to have been excited to any extraordinary action, being of the natural usual size, structure, and texture; for the water in the pericardium does not imply preceding inordinately great action.

5th, The acute pain referred to the heart by the sufferer for several weeks, now appears to have been most probably occasioned by the destruction of the dorsal vertebræ, owing to the pressure of the aneurism with a coagulum half a pound in weight, as well as by the erosion of the coats of the aorta.

6th, The case here related, is one among many others so frequently occurring, by which men of experience feel mortified not only on account of the little power they possess over the dis ease, but also from not having the satisfaction of knowing th diseased state (although irremediable) till after death. The bes comforts in such cases are, *1st*, The consciousness of having em ployed every known efficient means afforded by science. 2d From well directed investigation, furnishing materials for th discrimination of disease in future. Of what value these ma be, cannot be foretold. The history of philosophy instructs u that many facts were discovered for ages preceding their usef practical application, owing either to mere neglect of contempla tion, or from requiring other facts, subsequently brought t light, in order to render them beneficial.

In the particular history before us we learn, *1st*, That th symptoms of certain aneurismal diseases, throughout their who course, are still to be discovered. *2d*, That dyspnœa upon b dily exertion; a pulse not much more frequent than in health lying on one side with more ease than on the other, or lyin easily only on the back; the absence of buffy blood; acute pai in the back of the dorsal vertebræ, and of the region of th heart, (the known characteristic symptoms of other pulmonar diseases being absent), may perhaps contribute to manifest dila tation of the aorta just at its descent from the great curvature.

If this disease had been known and fallen under treatment i its earlier stage, the most likely means of benefit would hav been employed, viz.

1st, The strictest injunctions to avoid bodily exertion.

2d, To take food of easy digestion, and in small quantities a a time.

3d, To avoid entirely fermented liquors.

4th, To occasionally diminish the circulation by blood-lettin

5th, To constantly keep the bowels in a lax state by salin purgatives.

6th, To preserve tranquillity of mind.

7th, To keep up a determination of the circulation on the ex terior parts by flannel or cotton clothing.

8th, Perhaps it may be thought advisable to use various e ternal applications to the chest.

There is good evidence of aneurisms in some instances disap pearing by the natural powers of the animal economy. If so; a though it is not pretended that any means of art are of powerf agency, yet they may become humble assistants, or, at least, it practicable to render negative service, by avoiding the *nocenti*

PART II.

CRITICAL ANALYSIS.

I.

Traité des Poisons tirés des Règnes Minéral, Végétal, et Animal, ou Toxicologie Générale, considerée sous les Rapports de la Physiologie, de la Pathologie, et de la Médécine légale. Par M. P. Orfila, Naturaliste-pensionnaire d'Espagne, Docteur en Médécine de la Faculté de Paris, &c. Tome II. en Deux Parties. Paris, 1815. 8vo. pp. 340, and 335.

We proceed, with pleasure, to give an account of the concluding parts of M. Orfila's classical work. The first volume treated of the corrosive and astringent poisons; the second volume, consisting also of two parts, contains the history of the acrid, narcotic, narcotic-acrid, and septic poisons; and concludes with poisoning considered in a general manner. In his classification of poisons, Orfila has followed preceding writers, particularly Vicat and Fodéré; but he is perfectly aware of its great and numerous defects, and has only retained it, because, with the diffidence characteristic of a truly scientific observer, he felt strongly the difficulty of offering a satisfactory arrangement of poisons derived from their mode of action, and postponed even an attempt at such a classification, until he had repeated his experiments in the different climates of Europe. (Vol. II. p. 119.) Last April he even set out for the coast of Africa to stûdy the poisonous productions of that quarter of the world; but was detained four months in the Balearic Islands by the breaking out of the war with Algiers. But although we must condemn that confidence which leads many, from very partial considerations, and with very limited knowledge, to overturn systems which have acquired some degree of authority, and to substitute their own crude and hasty speculations; still, in our opinion, M. Orfila has been over-cautious; and we regret that he, who, of all men living perhaps, was best able to do it, has not *reformed*, if he would not destroy a system so glaringly wrong, and that he has contributed to continue and propagate obvious error by his high authority. In proof of this, we need only state, that he classes among the acrid poisons the hellebores, which he himself afterwards adduces as the best example of the narcotic poisons. But we conceive he has been led to this by having reprinted, in his first part, Fodéré's classification, without alteration, in regard to the classes to be treated of in his second volume, and which M. Orfila had not *then*, we suspect, examined so accurately as he has since done. An error in mere arrangement does not, it is true, invalidate the accuracy of the history of each individual poison, to which M. Orfila's experiments have contributed so much; but it interferes very much with the general conclusions drawn with regard to each class. To remedy this in some measure, he has subdivided the first class treated of in this second volume; and as this subdivision of the acrid poisons is founded chiefly on the circumstance of their being absorbed or not, it is necessary to state by what characters M. Orfila determines this point, which has often been a source of obstinate controversy.

It is evident, he says, if a poisonous substance, when applied to the cellular membrane, excites very little local action, but produces, in a short time, vomiting, vertigo, and convulsions, and death in a few hours, that it has been absorbed. The same conclusion may be drawn with still more certainty, if, in addition to these symptoms, inflammation of the lungs or intestinal canal be found on dissection, when the poison was applied to the cellular substance. It seems also to have been absorbed, but slowly, when, being a substance sparingly soluble in water, its application to the cellular tissue is not followed by any remarkable symptoms for the space of twenty-four or thirty-six hours; and death does not take place for two or three days, provided it excites only very slight local inflammation, incapable of accounting for the fatal event.

It is not absorbed, when its application to the cellular substance is not followed by any general symptom, but is limited to the production of an extensive scar, and death only follows from the subsequent inflammation, for the purpose of throwing off this foreign matter or dead part. M. Orfila is even inclined to think, that the poison has not been absorbed, when it produces a very violent inflammation of the cellular membrane of the part to which it is applied, followed by death on the first or second day, provided the animal has not vomited, and no lesion of organs to which the poison has not been applied, is to be discovered on dissection; even although the substance is dissolved in water, and applied to the inside of the thigh in the neighbourhood of numerous veins and lymphatics.

The first division of acrid poisons, are those properly so called. They excite violent local action, confined to the part to which they are applied, and the immediate vicinity, and cause death from mere pain and irritation, without being absorbed, or producing any affection of the system, except from sympathetic irritation of the nerves. In this case, the animals almost always die in a state of great depression, and general insensibility, and the action of the poison is more rapid when it is introduced into the stomach, than when it is applied to the cellular substance. According to the experiments of M. Orfila, bryony, gamboge, hedgehyssop, staves acre, sedum acre, various species of daphne, euphorbium, iatropha, and ranunculus, and nitre, belong to this division of the acrid poisons.

Another division of acrid poisons consists of those which, besides exciting local inflammation, are slowly absorbed, and produce mixed effects, depending upon local and general action. Some of these poisons seem to possess a specific action on the rectum or lungs, which are affected even when they are applied to the cellular substance. Elaterium, colocynth, sabine, pulsatilla, squill, celidon, and hemlock dropwort, belong to this variety.

Lastly, other substances, very incorrectly referred to the class of acrids, produce little or almost no local effect, but seem to be rapidly absorbed into the circulation, and give rise to vomiting, vertigo, total stupefaction, or convulsions. These poisons act more quickly when applied to a wound, than when introduced into the stomach; and after death no particular lesion, either of the part, or of any other organ, is to be discovered. The hellebores, both black and white, Rhus radicans, and toxicodendron, narcissus, pseudo-narcissus, and aconite, belong to this class. It must, however be confessed, that althougb these divisions are sufficiently marked in most instances, some substances seem to hold an intermediate place between several of them. The oxymuriatic acid, sulphurous and nitrous gases, which M. Orfila has treated of among the acrid poisons, evidently act upon a totally different principle, and ought to be removed from them altogether.

On the treatment of the disease produced by the acrid poisons, M. Orfila shows, that we have not that acquaintance with the chemical constitution of these vegetable matters, which would enable us to point out any substance capable of decomposing them in the stomach, and rendering them inert; and he reduces all our knowledge of this part of medicine to the favouring of their expulsion by vomiting, by means of copious mucilaginous drinks, in case nature has not effected it, and to the treatment of their secondary effects according to their kind.

The fourth chapter treats of the narcotic poisons, opium, hyoscyamus, prussic acid, laurocerasus, bitter almonds, lactuca virosa, &c. The symptoms produced by this class of poisons are nearly the same, whether they be taken into the stomach, applied to the cellular substance, or injected into a vein, except that death is caused most quickly in the last, and most slowly in the first way, as if their nature were changed by digestion in the stomach; or rather, because they enter the circulation more slowly by absorption from an entire surface covered with mucus, than when applied to the divided mouths of absorbents and veins, or directly injected into veins.

The symptoms commonly produced are well known; but, in regard to opium, which is generally considered as the chief of this class, M. Orfila entertains opinions somewhat peculiar. He thinks that opium, in a large dose, ought not to be considered either as a narcotic or as a stimulant poison, but that it exercises a particular mode of action, for which we have no name. It induces, first, a marked degree of stupor and paralysis, after which the pulse becomes full, and often quick; convulsions and tetanus come on, and continue at intervals until death, without any remission of the stupor, from which, however, the subjects of experiment are easily roused. These symptoms differ on the one hand from the effects of hellebore, which are purely narcotic, and, on the other, from those of camphor, which are stimulant. Opium, in a small dose, produces in general only the primary narcotic effects, although, in some cases depending on idiosyncrasy, it excites violently. Lastly, M. Orfila does not admit any identity of action between opium and spirituous liquors taken to excess.

The narcotic poisons, when swallowed, produce no pathologic change upon the intestinal canal; and when applied to the cellular membrane, only excite the same slight irritation as any foreign body. The veins of the brain and its membranes are frequently rendered turgid with blood, and the lungs are often gorged with blood, an effect also of some of those poisons classed among the acrids. The blood in the ventricles of the heart and in the veins, contrary to the assertion of some authors, is often coagulated soon after death.

M. Orfila has investigated judiciously the effects of the reputed antidotes of the narcotic poisons; and, in regard to vinegar, he found, that, when undiluted, it accelerated and aggravated the effects of opium in the stomach, and always excited inflammation of that organ; but that, when the opium was previously expelled by vomiting, or when it was applied to the cellular membrane, water acidulated with vinegar, or the other vegetable acids, taken into the stomach, diminished and corrected the symptoms of opium. From the experiments from which these facts are derived, we are disposed to conclude, that the vegetable acids are in reality correctives of the bad effects of opium; and that their effect in accelerating and apparently aggravating the poisonous action of opium in the stomach, are referable to its dissolving the poison, and to its own action upon the coats of the stomach when employed undiluted.

In regard to coffee, M. Orfila is of opinion, that neither the infusion nor decoction accelerate or aggravate the effects of opium as a poison; and although the infusion, when well prepared, and repeatedly administered, rapidly lessens the symptoms, it cannot be considered as an antidote. The oxymuriatic acid, which some writers have recommended as an antidote, is itself a corrosive poison when employed sufficiently strong to decompose the opium; and when sufficiently diluted to be safe, it has no advantage over the vegetable acids. Camphor given along with opium, does not prevent its sedative effects; and water, and mucilaginous fluids, rather accelerate them by dissolving the opium; while blood-letting never produced any injurious effects, but, in some circumstances, seemed to save the life of animals under the influence of opium. As the result of his experiments, M. Orfila gives the following directions for the treatment of a person poisoned by opium.

1st, To expel the opium from the stomach by vomiting; for which purpose, three or four grains of sulphate of copper, five or six of tartar emetic may be given; and in cases where, from the quantity of opium swallowed, these have no effect, M. Orfila suggests the injection into a vein of one or two grains of tartar emetic as a last resort.

2dly, To avoid the administration of watery liquors, with the view of promoting the vomiting, as they dissolve the opium and promote its absorption.

3dly, To open the jugular vein immediately after the rejection of the poison, and to repeat the operation, if necessary.

4thly, After this, to administer alternately water acidulated with any vegetable acid, and a strong infusion of coffee warmed.

5thly, In ten or twelve hours to administer a glyster with camphor; and the bed of the patient should be warmed, and his arms and legs well rubbed.

6thly, To give purgative glysters if a considerable time has elapsed since the opium was administered, and there is reason to believe that it still remains in the large intestines.

The same mode of treatment is adapted for all the narcotic poisons, except prussic acid, and vegetables which contain it, especially bitter almonds, laurocerasus, &c. On this subject M. Orfila has not made experiments himself, but he adopts the conclusions of M. Coullon and Professor Emmert. The former published an inaugural dissertation on prussic acid at Paris, in 1808, which contains many interesting facts, some of which led him to conclude, that olive oil and milk in no way counteract the poisonous effects of prussic acid; and that ammonia, oxymuriatic acid, and theriac, have very little effect against them. The poisonous effects of prussic acid, were also the subject of the inaugural dissertation of Professor Emmert, published at Erlangen in 1805; and the discovery of an antidote to them has since been a favourite object of his researches. The results of these which he has yet published, he liberally communicated to M. Orfila in the following paragraph.

'I have not been able to discover any antidote for prussic acid. *Caustic potass* does not in any way counteract its effects, nor those of the distilled water of cherry-laurel or bitter almonds, which is the more extraordinary, as the two latter liquids lose their poisonous properties when they are treated with muriate of iron and potass, and there is iron in caustic potass. *Fontana* already observed, that common caustic (potass by lime) combined with oil of cherry-laurel, did not prevent its effects, whether given internally or applied externally. Among all the remedies which I have tried, oil of turpentine seems that which was most powerful in counteracting the effects of those poisons. The same observations are applicable to the oil and bark of the *prunus padus*, whose action on the animal economy is the same with that of prussic acid.'

In the preceding observations, there is some apparent inconsistency, unless Professor Emmert means, that although muriate of iron and potass (combined, or each separately?) deprive the distilled waters of cherry-laurel and bitter almonds of their poisonous qualities when mixed with them before they are administered, still that caustic potass, which contains iron, in no way counteracts their poisonous effects when the alkali is not administered until after the poison has begun to act. Dr Schaub, who published an inaugural dissertation on this subject at Marburg, in 1792, and Dr G. B. Scott, who published an excellent dissertation on laurocerasus at this University in 1815, and many of whose experiments we witnessed, both convinced themselves that the poisonous qualities of these substances were destroyed by being combined with alkali before they were administered.

The classification of azote, and the protoxide of azote among the narcotic poisons, is evidently erroneous.

M. Orfila next considers the substances which have been classed, as combining the effects of acrids and narcotics (narcotico-acres.) M. Orfila is fully aware, that it is a very incongruous assemblage of substances, some of which properly belong to some of the classes already examined, while the others should be separated into different classes, their action is so diversified. One subdivision consists of substances which have a striking analogy, in their effects, to some of those poisons improperly termed acrid. They produce little local action, but are quickly absorbed into the system, producing vomiting, agitation, excitement, or trembling, with stupefaction. As examples of this kind, we may quote belladonna, datura, digitalis, woorara, rue, tobacco, anagallis arvensis, aristolochia clematitis, and oleander. The poisons of the natural order of umbelliferæ differ only in producing a greater degree of delirium or frenzy, while the poisonous fungi seem to act chiefly upon the stomach itself, giving rise to inflammation, cholic pains, cramps, and deliquium.

Alcohol and æther produce a greater degree of excitement and intoxication than any other substances; and, when they prove fatal, the stomach is violently inflamed.

Another very distinct class of substances consists of those which excite violent paroxysms of convulsions, as camphor, or of tetanus, as the upas tieuté, and antiar, ticunas, nux vomica, faba Sancti Ignatii, coculus Indicus, and Angustura pseudo-ferruginea. The experiments of M. Orfila upon the poisonous variety of angustura bark, suggest the propriety of giving a pretty full account of it, as we consider it very important that it should be universally known to the profession.

Poisonous effects produced by the use of a decoction of angustura in a patient at Hamburgh, attracted the notice of Dr Rambach, who first distinguished two kinds of angustura bark, to which he gave the name of genuine, and spurious or poisonous. Afterward it was stated that they were known in commerce as being different, and the genuine called West Indian, and the spurious, East Indian angustura; and we find this statement adopted by Dr Pfaff * and other German authors on materia medica; but as both kinds often occur in commerce mixed together, it is more probable that both come from the

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* System der Materia Medica nach chemischen Principien. 3 vol. 8vo. Leipzig, 1811, vol. II. p. 102.

same country, than that the importers and druggists should generally mix barks coming from such distant countries, however similar in appearance. Be this as it may, the genuine angustura may be distinguished from the poisonous, by the following characters, for which we are indebted to the labours of Drs Rambach,* Pfaff, and Planche,† who gave it the name of *pseudo-ferruginæa.*

Genuine.	*Spurious.*
The produce of the *Bonplandia trifoliata* of Humboldt, a native of South America.	Unknown. Said by some to come from the East Indies; and one kind suspected by *Planche*, but contrary to probability, to be got from a variety of the *Cinchona magnifolia* of Bonpland.
Size from $\frac{1}{2}$ to $\frac{3}{4}$ of an inch broad; 2, 3, or 4 inches long; half a line thick. Outer surface uniform greyish white, as if covered with an uneven mealy coat, which is easily removed, and exposes a brown surface beneath. Inner surface greyish-yellow, or light-brown. Texture fine; very brittle. Fracture even; much darker and browner than the inner surface; somewhat shining, and evidently resinous.	Size generally of greater breadth than length; two lines thick. Outer surface covered with a web of distinct small white warts, not easily removed, or with an uniform rust-coloured lichen-like covering. Inner surface, dirty yellowish-white, or grey, or most commonly black, without visible fibres. Texture coarse; very brittle. Fracture even; partly white, or yellowish-white, or even clear brownish; not shining and resinous, but more mealy, and partly exhibiting two distinct layers.
Smell, aromatic; somewhat nauseous.	Smell, resembling somewhat that of the genuine kind.
Taste aromatic bitter, but not at all disgustingly bitter, or astringent, succeeded in some degree by an aromatic flavour like mace.	Taste, in the highest degree disgustingly bitter; very durable, and not at all aromatic, or astringent.
Bark, on being chewed, becomes dark-brown-yellow. Powder, when fresh, yellow, like good rhubarb, becoming paler by keeping, with a more aromatic smell than the bark.	Bark, on being chewed, becomes paler. Powder clearer yellow.
Concentrated infusion, clear, of a fine reddish brown or orange colour, and a bitter, only slightly acrid, taste.	Concentrated infusion, not so clear, more of a dirty-brown colour, and of a most disgustingly bitter taste.
Diluted with water, its colour becomes yellow.	When diluted, it does not become yellow.
On the addition of an alkaline carbonate, it is changed to dark red, and after some time deposites a clear	On the addition of an alkaline carbonate, it becomes greenish, and deposits a flocculent greyish-yellow pre-

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* Hufeland's Journal der prakt. Heilkunde, Vol. xix. p. 181. 1804.

† Notice chimique sur les angustures du commerce, lue à la Société des Médécins de Paris, le 2 Juin 1807, par L. A. Planche.

Genuine.	*Spurious.*
citron yellow, somewhat flocculent, precipitate.	cipitate, and the supernatant liquor becomes gradually dark-brown, beginning at the surface.
A solution of persulphat or permuriat of iron imparts to it a higher red colour, and after some time throws down a rose-coloured precipitate.	A solution of persulphat or permuriat of iron imparts to it a dark-green colour, and soon throws down a copious satin black precipitate, verging somewhat to ash grey, which is perfectly redissolved by nitric acid, and forms an olive solution.
Is not rendered turbid by solution of gelatine.	Is not rendered turbid by solution of gelatine.
Saturated decoction of a fine red-brown, on cooling becomes turbid, and deposits a deep-yellow powder.	Saturated decoction, brownish-yellow, and, on cooling, deposits a very copious grey-brown precipitate.
Saturated tincture, dark-red-brown, becoming very turbid by the addition of distilled water, and depositing a clear yellow resin.	Saturated tincture, much paler; and, on the addition of distilled water, only gets a pale-yellowish opaline appearance, without becoming red, or depositing any precipitate.

Besides the observations made at Hamburgh, by Dr Rambach, fatal effects from the use of spurious angustura occurred in Hungary and at Bern. The Austrian Government, after obtaining proof of its poisonous effects on animals, ordered all the angustura bark in the empire, genuine and spurious, to be burnt, and interdicted its future importation. Its sale was also prohibited in Denmark; and in Russia and Wirtemberg, the danger connected with its use, and the characters for distinguishing the genuine from the spurious, were published by authority. *

The Medical Faculty of Vienna had found, that dogs and rabbits were not affected by large doses of genuine angustura, but were speedily killed by small doses of the spurious kind, given internally. The experiments of M. Orfila confirm these observations. A few grains of the powder or of the extract, whether given by the mouth or applied to a wound, were sufficient to kill a dog in 20 or 30 minutes. A solution of the extract injected into the jugular vein operated instantaneously. The yellow bitter principle extracted from the bark by dissolving it out of the alcoholic extract by means of water, also was more active than the bark itself. The symptoms preceding death exactly resembled those produced upon dogs by the nux vomica and St Ignatius's bean, and the upas tieuté, viz. violent convulsions resembling tetanus, occurring in paroxysms, in one of induced by each kind of poison, and has indicated the best mode of dissecting the body, to ascertain the truth.

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* Kopp's Jahrbuch der Staatsarzneykunde, Frankfort, 8vo. 1809, p. 493. 1810, p. 324. 1811, p. 347. 1813, p. 382. 1815, p. 338.

In the next section, he has placed, in its proper point of view, the information to be derived from experiments made on animals, with the remains of the suspected food, and the contents of the stomach and intestines of the deceased, or the matter rejected by vomiting. His chief object here is to show, that, to render the experiment conclusive, it is necessary to adopt his method of injecting the substance to be tried by a hole pierced in the œsophagus of a dog, and then to put a ligature on the œsophagus, to prevent its being rejected by vomiting.

In our review of the former volume of this very admirable work,* we made some objections to the second of these methods of experimenting, which was very much employed by M. Orfila; and we are glad we did so, because our author has been induced by them to show that they were groundless, and that we may safely confide in the results of his experiments made in this way, and, in fact, that it is indispensable for the investigation of a poison in all its relations.

'Several reviewers,' he says, 'both French and foreign, in giving an account of the first volume of this work, have stated, that an operation so painful might produce severe symptoms, and, consequently, that the results obtained by means of it might not be so conclusive as they might at first appear to be. But,' he asks, 'could I be supposed to have prosecuted such a laborious undertaking, without having satisfied myself, by rigorous experiments, of the influence of this operation? These, in fact, demonstrated, 1st, That the conclusions I have drawn ought not to be modified in consequence of the tying of the œsophagus; 2dly, That it is impossible to write a complete treatise on poisons, without practising it often.

'It is superfluous to mention, that this must be understood of the operation as skilfully performed, in which case it occupies only a minute, or a minute and a half; for, unquestionably, the effects of this operation may be severe, if, by ignorance or want of dexterity, the animals be tormented fifteen or twenty minutes before it be completed.'

From the detail of twelve experiments, it clearly appears, that dogs, from tying the œsophagus, only experience, during the two first days, slight fever and depression, and when killed at the end of this period, there is no organic lesion whatever to be discovered in the body. Sometimes eleven days elapse before they expire from want of food, and, in this case, when opened, the appearances discovered are those which are characteristic of starvation: And with the view of preventing the unnecessary repetition of these cruel, but necessary experiments, we shall extract them.

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* Edinburgh Medical and Surgical Journal, Vol. XI. p. 125.

'The ventricles of the brain contained no serum; the external vessels of the right lobe of the brain, gorged with black blood; the lungs, of a fine rose colour, had some brownish marks on their surface; the heart, somewhat softened, contained coagulated blood; the mucous membrane of the stomach presented, here and there, some spots of a rosy-colour, (in healthy dogs, as well as in those killed by starvation, the folds formed by the mucous membrane are often of a violet-colour), and near the pylorus there are most commonly small ulcers with the edges black; the intestines all tinged yellow with bile; and sometimes red spots on the rectum. Upon the whole, it is evident, that violent symptoms, quickly succeeding the exhibition of any substance by the œsophagus, death in the course of a few days, and the appearances discovered in the body, are the unmodified effects of the poison.'

It has also been objected, that experiments made on dogs are not conclusive as to the effects of any substance on the human body; but the contrary is firmly established by M. Orfila's numerous experiments. Vol. II. Part II. p. 222, *note.*

The next section is important, and contains many original experiments to determine the characters by which it may be known whether a poison, found in any part of the intestinal canal, was introduced during life or after death? This, to some thoughtless people, may seem a frivolous question, which never can be of any practical use; but, besides that knowledge in itself is always valuable and desirable, the possibility of its serving to determine, even in one instance, upon the guilt or innocence of an accused person, is sufficient to give it a high degree of interest in the minds of all who would be prepared for every occurrence. M. Orfila even mentions, that the case has occurred in Sweden, of poison being introduced into the rectum of a body after death, for the purpose of criminating an innocent person. It has also great analogy, and may serve to elucidate a question which has frequently occurred, and upon which the writer of the present article has twice been called to give evidence, where the life of the accused depended upon the fact, whether the deceased had been burnt to death by accident, or had been burnt after death to conceal murder perpetrated in another way; and the perusal of the experiments of M. Orfila excite considerable doubts whether the evidence then given was correct, and whether a hypothetical opinion regarding the difference of the action of fire upon the living body, and upon the body soon after death, did not save a murderer, in one instance, from the gallows.

The subject deserves to be brought to the test of such experiments as those which M. Orfila has here related with regard to poisons; and particular attention should be paid to the length of time which has elapsed between the killing of the animal and the application of the fire; a point which a very acute judge, now no more, suggested as of great importance; for it occurred to him, that fire applied to the body immediately after death, would produce effects not to be distinguished from those of its application to the living body.

The result of M. Orfila's experiments on this curious subject is,

1st, That corrosive sublimate, arsenious acid, verdegris, and the sulphuric and nitric acids, introduced into the rectum some minutes after the death of an animal, produces alterations of texture which resemble, in a certain degree, those produced by the introduction of the same substances during life.

2d, That, however, it is always easy to distinguish them by the following characters.

a When the poison has been introduced after death, a considerable quantity of it is found at a little distance from the anus, unless when it has been used in solution; whereas little is found when introduced during life, as the greater portion is expelled by the stools occasioned by it.

b When applied after death, the alteration of texture extends only a little beyond the part to which the poison was applied, so that there is a *very sharp line of division* between the portion affected and those not at all changed; a phenomenon never observed in the other cases. In fact, these poisons act on the living system by causing a violent irritation, succeeded by inflammation of variable intensity, but which always extends beyond the place to which they are applied, and which gradually decreases as it recedes from that place, so that there never is a *perfectly distinct line of separation.*

c The redness, inflammation, ulceration, and other lesions, extend much further when the poison has been introduced during life, than in the other case; thus, if, after death, we find the rectum, or stomach, covered with a considerable quantity of one of these poisons, and the lesion not much marked, there is very strong reason to conclude, that it has been applied after death.

3d, Some of these poisons, such as corrosive sublimate and nitric acid, when applied after death, produce changes so peculiar, that it is impossible to mistake them.

4th, When introduced into the intestinal canal twenty-four hours after death, they produce neither redness nor inflammation, because the life in the capillaries is then entirely destroyed, and, consequently, the effects in this case cannot be mistaken for those of poisoning.

Lastly, They are still capable of producing inflammatory phenomena, when applied one or two hours after death; but the observations already made will enable us to decide correctly.

M. Orfila's work is concluded with a few observations on the poisoning of several persons at one time; on suicide by poison; on slow poison; and on the sequelæ of poisoning.

There are various circumstances incidentally noticed in the course of this extensive work, which possess an interest independent of their immediate connexion with its chief object. One of these, as of great importance in regard to pharmacy, we think it proper to extract. The great inertness of the extract of aconite, as procured from the shops of the best apothecaries of Paris, and of many other extracts, prepared by making a strong decoction of the plant, and evaporating it at a high temperature, led M. Orfila to make experiments, with the view of investigating the circumstance; and he found,

1st, That certain extracts prepared by expressing the juice of the recent vegetable, and evaporating it in the water-bath, are infinitely more active than those obtained in any other way.

2d, That they are of a yellow colour, strikingly different from the black colour of those found in commerce, which is produced by the decomposition of the substance.

3d, That the extracts of these plants, as found in commerce, differ remarkably from each other in regard to their action on the animal economy; and that there are many which are possessed of no virtue whatever.

II.

A General System of Toxicology, or a Treatise on Poisons, drawn from the Mineral, Vegetable, and Animal Kingdoms, considered as to their relations with Physiology, Pathology, and Medical Jurisprudence. By M. P. ORFILA, M. D. (Translated from the French.) Vol. I. Part I. London, 1815. 8vo. pp. 246.

WE notice this, merely to advertise the translation of Orfila's work, of which we understand a second part has been published, and to express our hope, that notwithstanding the little encouragement given to translations from the French, it may be completed, and to recommend it to those who have not access to the original; and we trust that it is sufficient to say, that we have no work on the subject in the English language, which can in any respect compare with it.

III.

Observations on the projected Bill for restricting the Practice of Surgery and Midwifery to Members of the Royal Colleges of London, Edinburgh, and Dublin; and to Army or Navy Surgeons: with some Modifications proposed, by which the Measure will be more compatible with the true interests of the Public; and not oppressive to the present Race of Pupils for the Profession. By a GENERAL PRACTITIONER. London. 8vo. pp. 31.

We have hitherto declined entering into any discussion of the various propositions for *Medical Reform,* because we considered them merely as idle speculations, generally originating in interested views, personal or corporate, in the projector, as evinced by his evident desire to bring down to his own level all the classes of the profession above him, while he is no less careful to contrive insuperable barriers to prevent any of a lower class from rising to be his equal. But, when we find his Majesty's ministers legislating for the profession,—when medical reform is no longer a speculative, but has become a practical question of vital importance, it is no longer proper to remain silent. At the same time, we must honestly declare, that we are neither prepared, nor have we leisure, at present, to enter fully into the very wide and intricate field of inquiry before us. The nature of our profession is such, that its regulation, even when the subject is considered abstractly, is involved in peculiar difficulties; but, complicated as it is with the jarring rights of corporations and individuals, and the incongruous usages and prejudices of various places, we can hardly determine upon the course we should follow to unravel the matter.

It is, however, evident, that the primary object of all legislation, including the regulation of the medical profession, is the good of the community at large, and that the rights and interests of individuals are to be held as entirely subservient to it. This leading maxim is more true in regard to our profession than perhaps in regard to any other, as the chief effect of monopoly or privilege conferred upon certain persons exercising other professions, is to operate as a kind of tax, rendering the article in demand somewhat higher priced; but every regulation or law which has any tendency to prevent the free exercise of medical skill, or to diminish the amount of that skill, brought, as it were, into the market, affects, not the purses, but the health and lives of his Majesty's liege-subjects. As vested or acquired rights are justly held to be sacred, it may often be less oppressive to the community to allow a monopoly to continue in other professions, though its existence be a matter of regret, than to buy it up from those who possess it. But, in regard to the medical profession, it is quite otherwise; and wherever corporation rights and privileges stand in the way of the public good, they should be abolished, restricted, or modified, and their possessors indemnified for the loss they may sustain. But, if this position be well-founded in general, it cannot be disputed that no new privilege should be granted, no new enactment made, which has, or may have, the effect of favouring any class of the profession, except as a means of benefiting the public.

By these observations, we are far from meaning that the practice of the healing art should be exempted from all restrictions, or that its exercise should be thrown open indiscriminately to all who might venture upon it; for there is perhaps no profession which, in the hands of the ignorant, is so hurtful, or where the public are so apt to err in judging of the merits of individuals. It is upon these grounds that the erection of royal colleges, and of privileged medical corporations, and the rights acquired from academic honours, are rational and expedient; and if the titles connected with them went no further than to point out to the public those individuals of the profession who were sufficientl skilful to exercise it beneficially, much good, and no evil, woul arise from their institution. But, when the rights acquired fro any of these sources become exclusive, it is fraught with dange to the community, and is frequently oppressive in regard to i dividuals.

The pamphlet before us contains many strong objections to bill introduced in the last Session of Parliament, for regulatin the practice of surgery, which we thought of so much impor ance that we reprinted it in our last Number, to render it know to the profession at large.

The object of the bill is to restrain, by law, ignorant and i capable persons from practising surgery, whereby, it is said, the health of great numbers of persons is much injured, and the lives of many destroyed. The means by which it is proposed that this desirable end should be attained, are, to give a monopoly of the practice of surgery, for lucre and profit, to persons who shall have been personally examined as to their qualifications and fitness thereto, by one of the Royal Colleges of Surgeons of London, Edinburgh, or Dublin, and obtained from it a testimonial of their knowledge and ability to practise surgery, having paid the usual fee, and to persons who shall have been duly examined, and shall have obtained a testimonial as a principal surgeon in his Majesty's army or navy, and shall have actually served in that capacity, and the same individuals are the only *males* to be permitted to practise midwifery.

Upon these provisions, the *Observations* before us are judicious, and deserving of the notice of our legislators, before they sanction a measure which we fear will have no other effect than to increase the power and enrich the treasuries of the Royal Colleges of Surgeons. It is no doubt extremely plausible that the skilful only should have a right to exercise a profession of so great difficulty, and affecting so materially the lives and bodies of his Majesty's liege-subjects; and that, as the public in general, and the lower classes in particular, are very incompetent judges of professional attainments, some criterion of these should be established: and that no better criterion can be devised than an examination by those who are the best judges of professional merit. But we are firmly convinced, that it is impossible, by any regulations, to prevent the ignorant from practising surgery to a certain extent. We can scarcely conceive a greater encroachment on the natural rights of man, than to prevent, by law, a person requiring surgical assistance, from obtaining it wherever he can; or, when he has the power of selecting his surgical assistant, to prevent him from exercising his judgment or discretion in the selection. It is needless to state imaginary cases of hardship, oppression, and cruelty, which might result. We prefer resting the argument upon the violation of a natural and indefeasible right. In the same manner, it would be contrary to justice and humanity to prevent any person from giving assistance in a surgical case, when it was required or solicited, especially if such person was able to give it in reality, though not qualified by law, and if no better, or, at least, no other immediate assistance, was to be had. It will be stated, in reply, that the law is not intended to prevent any person from giving occasional surgical assistance, or, in fact, from rendering services which humanity requires, but only to prevent ignorant persons from exercising the profession of surgery as a means of livelihood. In this view, it is material to determine what is meant by the practice of surgery, whether it is understood to include bleeding, cupping, cleaning and pulling teeth, extracting corns, paring nails, syringing the ears, or the application of eye-salves, and cancer remedies; in short, all those minor operations which are sometimes performed by the educated surgeon, but are commonly declined by him as derogatory to his dignity, and are executed with great dexterity by a lower class of practitioners, who devote themselves almost exclusively to one or other of them, or are seized upon by the empiric or nostrum-vender; or, if the meaning of the words, practice of surgery, is to be limited to those operations which are the peculiar province of the well educated surgeon. If the latter interpretation be adopted, we are convinced that the restrictions of the act are altogether unnecessary; for such important operations are, except by a few hereditary bone-setters, never attempted by persons who do not possess enough of surgical knowledge to pass an examination before the Royal Colleges. Indeed, country practitioners, even when qualified by the possession of a diploma, are very much disposed to save themselves from incurring the responsibility, by sending patients requiring operation to the nearest hospital, or even to the metropolis. Those who practise the higher department of surgery, either already possess diplomas, or might obtain them, unless their course of study has been such as not exactly to fulfil the by-laws of the colleges. In either case, compelling them to take out diplomas will not have the effect of restraining the ignorant or incapable, or of increasing the quantity of surgical skill diffused over the country, but will have the very opposite effect, of lessening the number of able and competent surgeons, or of putting them to unnecessary and oppressive expenses, which they must recov by increasing their charges upon their patients. As to the fe bone-setters to be found in several parts of the country, the commonly confine themselves to the treatment of certain acc dents, in which, from practice, they have become dexterous; an as the Royal Colleges do not *now* interfere with them, or th venders of surgical nostrums, even when their power extends t them, there is no probability that they will think them more deserving of their notice, after the passing of the new act.

We shall next consider the proposed restriction as intende to extend to the lower department of surgery. The proposition is monstrous. Even in the metropolis, it would deprive the public of the services of the most dexterous cuppers, dentists, and chiropedists; and, in the remoter parts of the kingdom, would sometimes deprive the people of the only surgical aid within their reach; and, in the instance of some operations, by giving a monopoly of them to those who will not condescend to perform them, and by restraining those willing to perform them, it will amount to an absolute prohibition.

But the act is directed against the ignorant and incapable, only when practising surgery for *lucre* or *profit*. Upon this qualification we shall only observe, that we have heard of a Reverend M. D. who enjoyed great reputation, and received a very handsome income in *presents*, so long as he declined taking fees, but who lost both, when he could no longer resist the temptation of money pressed upon him. At any rate, such a modification is easily rendered altogether nugatory, and could only operate in preventing such unqualified person from recovering payment in a court of law.

So far as mere surgery is concerned, the act will therefore be almost nugatory, or oppressive only upon individuals; that is, it will have no effect in restraining the ignorant from doing all that they do at present, although it may compel persons capable of passing the examination to pay the college fees, however unable, and that without any advantage, either to themselves or the public.

With regard to the practice of midwifery, the bill leaves it to be exercised by any woman, no matter how ignorant or incapable, as if the difference of sex in the person by whom an injury is committed, should have an effect in rendering the injury legal or illegal. In the next place, it concedes the practice to a class of the profession who are not particularly called upon to study it,—who undergo no examination as to their knowledge of it,—and many of whom, the naval surgeons especially, from the very nature of the service from which their right is derived, have had little opportunity of practising it. And, lastly, this bill, under pretence of restraining the ignorant and incapable from practising surgery, interdicts the practice of midwifery to what the law considers as the most learned and able class of the profession, because, forsooth, surgical aid is frequently required. By the same argument, the treatment of fevers, and of all inflammatory diseases, internal as well as external, in which bleeding is almost indispensable,—of dropsies, in which tapping or scarifying is occasionally resorted to,—in short, of all diseases whatever,—might be prohibited to all physicians, unless qualified by a surgical diploma. 'It is understood, that the Royal College of Physicians of London decline licensing any more of their members in midwifery, and any interference with the obstetric art.' If the author of the Observations be correct in this statement, and if the Fellows of the London College are so vain as to think themselves degraded by any association with such men as Hunter, Denman, and Clarke, the sister colleges in Dublin and Edinburgh must protect themselves, and the universities defend the rights of their graduates. In Edinburgh, the male practice of midwifery is almost exclusively confined to members of the Royal College of Physicians. In Dublin we believe it is the same. The practice of midwifery is one of the chief sources of professional income of physicians over the country; and we should think it necessary for the framer of the bill to prove, that the health of great numbers of persons is much injured, and the lives of many destroyed, by their ignorance and incapability, before such an invasion of their rights as that proposed, should receive the sanction of the Legislature. If this were a mere corporation question, Whether the practice of midwifery should be in the hands of the physicians or surgeons?—we should care very little about it; but a much more material consideration is, that the proposed bill will deprive the public of the assistance of a large proportion of the well-qualified *accoucheurs*,—that is, of all those physicians who do not think themselves degraded by the practice of midwifery, and who, it cannot be denied, are fully competent to give all the surgical assistance its practice requires.

But the greatest objection which we have to this bill, and one which, in our opinion, alone ought to cause it to be defeated, is its giving to the Royal Colleges of Surgeons, which in fact are mere local corporations, or are ingrafted upon local corporations, the extraordinary power of legislating for the general practice of the healing art. In its terms, indeed, i grants the monopoly only in *Surgery;* but as the public h found it expedient to employ, upon almost every occasio *general practitioners*, a class of the profession not recognis by law,—as the Colleges of Physicians interdict their membe from practising surgery, and do not prevent the surgeons fro practising medicine,—it is evident that those who have diplom from the Colleges of Surgeons, and are thereby authorized practise surgery, are best qualified to become general pract tioners; and accordingly, surgeons have become possessed the largest share of the practice of medicine, even in th metropolis. From this usage, we do not think the publi suffer any injury, but, on the contrary, derive great benefi although these surgeons have not been examined as to thei skill in medicine. It is, however, from considering the surgeons as the best general practitioners, that we have insuperable objections to increasing the power of the corporations, an of narrowing the monopoly. If the bill we are examining is to have any effect, it will subject the whole general practitioners of the empire to such regulations and by-laws as the Colleges of Surgeons choose to enact,—to undergo such examinations, and at such times as they may determine,—even to qualify themselves by such a course of study, and at such places, and under such masters, as they may fix upon, and to pay such fees as they may exact. It would betray an utter ignorance of the influence of corporation spirit on men, liberal and enlightened as individuals, not to foresee that such powers may lead to great abuse and serious evils, for which, at the same time, very plausible reasons may be easily alleged. If a high fee be required, it will be said to render the profession more respectable; or, if a member of such corporation, whom it is wished to support, give lectures on any subject connected with the profession, it may be alleged, that, rendering attendance upon lectures on that subject indispensable, will improve the education of the candidate. We will not, for a moment, suspect any respectable corporation capable of wilfully framing their enactments so as to favour their own teachers, to the exclusion of others whose lectures are equally instructive, but differ in some insignificant point of form. Yet it might happen, and a pretext would not be wanting. We are, therefore, decidedly of opinion, that the qualifications necessary for becoming a candidate, and the amount of fee to be paid on receiving a diploma, should be fixed by the same enactment which grants the monopoly.

To return. It seems quite inconsistent, that legislative protection should be given to the public, in regard to that branch of our profession, in which ignorance and incapacity can do least harm; for the cases in which surgical aid is necessary, bear no comparison, in point of number, with those where medical aid is required. Besides, ignorance and incapacity in surgery cannot be concealed, and are thus prevented from doing extensive injury, while there is absolutely no criterion of skill in the practice of medicine, except education, examination, and the esteem of the profession. It is from ignorance in medicine that 'the health of great numbers of persons is much injured, and the lives of many destroyed;' but what would be thought of a proposal to have it enacted, 'that it shall not be lawful for any person to practise *medicine* for lucre or profit, unless he shall have been personally examined as to his qualifications and fitness thereto, by the Royal College of *Physicians* in London, Edinburgh, or Dublin; and unless he shall have received a diploma, or testimonial of his knowledge and ability to practise *medicine*, under the seal of the Royal College before whom such examination shall have been made, for which diploma or testimonial, the usual fee, and no more, shall be demanded and received.' Now, as the Colleges of Physicians examine only those who have received the degree M. B., or M. D., in an University, it is evident that the injury of this monopoly to the public would be incalculable; and yet the reasons for passing such a bill, are much stronger than for that before us. In place of attempting to guard the public against the evils of ignorance and incapacity, in those who are candidates for general practice, by rendering a knowledge of surgery the only criterion by which they are to be judged, let it at once be recognised by the legislature, that others than physicians may *legally* practise medicine, and let the education and examination for a surgeon, or rather what we would call a general practitioner, have a reference to medicine, as well as midwifery and surgery.

Decided enemies to all monopolies, the necessity of which may be questioned, and friends to useful competition, we approve of that clause of the bill before us, which opens a free competition among the several Royal Colleges, and leaves the candidate for medical practice, in any part of the empire, to obtain his diploma from any one of them. This competition promises effectually to prevent the introduction of very oppressive regulations; at the same time it is liable to the objection, that the several colleges may differ very much in the qualifications required for getting a diploma, and the ignorant will soon find out where they run least risk of being rejected.

The last observation we have to make in regard to the bill itself is, that it imposes no penalties for contravening its enactments.

Upon the whole, we are convinced, that this bill will never be enforced, so as to have any effect in restraining ignorant and incapable persons from practising surgery; but that it may, and if it become a law, probably will, be carried into effect, so far as to render the education of a general practitioner more expensive, and, of course, reduce their number, and deprive the poorer, and more thinly inhabited parts of the country, of *regular* professional assistance altogether.

We have the authority of the Statistical Account of Scotland, that, when it was written, there were whole districts and islands without a resident medical practitioner. But the argument which such a state of the country would have furnished us, cannot now be urged with candour, when so many able candidates for practice know not where to find a subsistence. But, on the other hand, this *excess of medical aid* renders the bill at present quite superfluous; for those irregular practitioners must be very able and skilful men, and of undeniable service to the public, who can retain any practice, surgical or medical, against such a host of well-educated rivals.

IV.

A Vindication of the University of Edinburgh (as a School of Medicine), from the Aspersions of 'a Member of the University of Oxford.' With Remarks on Medical Reform. By LAWSON WHALLEY, M. D. &c. Lancaster, 1816. pp. 49.

WE should never have heard of the attack upon our Alma Mater, if this satisfactory vindication had not fallen in our way; but the charges against it, as reported by Dr Whalley, are of so curious a nature, that we are tempted to reprint the extracts he has made from the production of this unworthy member of the University of Oxford.

'The Oxonian commences by saying, "it might naturally have been expected that the morbid tendency of the present generation to reform, would have received such a check from the dreadful examples that have exhibited themselves in many situations, as at least to deter the prudent from dangerous attempts. Those examples, it is true, have been chiefly displayed by political reformers; they have run their course, their day is past, and most of them have experienced the lot they deserved. There is, however, a sign of the times, a portentous contempt of the great masters of ancient genius, which makes me suspect that the political reformer has only changed his garb; that he has descended from palaces and courts, to colleges and academies, only to play a surer game." p. 2.

What the writer means by the 'portentous contempt of the great masters of ancient genius,' we cannot divine. All that we learn from the whole paragraph is, that the Oxonian is an indiscriminate enemy to all reform, probably because he feels conscious that he is, by the present state of things, placed above his level, and would suffer by any reform, and that he considers every reformer as a Jacobin. But bigots of this description surely do not reflect, that ministers are perpetually employed in what they consider reform; and our Oxonian (we do not use this term with the view of speaking contemptuously of an University for which we entertain high feelings of respect, but as the only denomination by which we can easily avoid confusion between him and our author, Dr Whalley), must set down as a rank demagogue, the present Attorney General, who has undertaken to reform the practice of surgery. But with this the University of Edinburgh has nothing to do, as it neither projected nor supported any of the late wild and impracticable schemes of medical reform.

The first charge against Edinburgh is, that its school is *modern*. We cannot deny it; and if this circumstance should appear to any a matter of importance, Edinburgh still may boast, that it is the *oldest* medical school in the British Empire.

The next charge is of a more serious nature. There is no University, but only a school at Edinburgh; and the teaching is elementary, and the students rabble.

'In the school at Edinburgh, for it is miscalled an University, the teaching is elementary, adapted to the understanding of those who have had little previous instruction; and, indeed, whoever has sat among the rabble attending the anatomy class, or has seen the classes, as they are called, let loose from the several lectures of the College of Edinburgh, must instantly be aware of the necessity of the instruction being placed upon this footing.' p. 15.

Is this pretended Oxonian, for we begin to suspect he is very revolutionist in disguise,—is he really so ignorant as not t know, that the Legislature of Great Britain has, ever since th Union, recognised the University of Edinburgh equally wit Oxford, in every act regarding such institutions?

For his further edification, and as a matter of curiosity, w reprint the following extract from an act of the Parliament Scotland, dated 4th August 1621, ratifying the charter grante to the University of Edinburgh by James VI., on the 14th April 1582.

'Lykas his Majestie, off his princelie and royale favour, and fo guide service done to him be the saids provost, bailzies, counsall, an communitie of the said burgh of Edinburgh; and for their furthe encouragement in repairing and reedifying of the said colledge, an placing thairin sufficient professors, for teaching of all liberal sciences ordaining the said colledge, in all time to come, to be callit Kin James's Colledge; And also with advice of the saids estaitis, hes o new again given, grantit, and disponit to thame, and their successors in favours of the said burgh of Edinbur^{t}. patrouns of the said colledge, and of the said colledge, and of the rectors, regentis, bursaris, and students within the samen, all liberties, freedoms, immunities, and privileges appertaining to ane free colledge; and that in als ample forme and lairge manner as any colledge has or bruikes within this his Majestie's realme: And gif need beis, ordains ane new charter to be expede, under his Hienes great seale, for erecting of the said colledge, with all liberties, privileges, and immunities qlk any colledge within this realme bruikis, joises, or to the samen is knawin to appertain.'

We admit that, in the University of Edinburgh, there is a real and effective school of medicine, which our Oxonian seems to consider as a proof that it never enjoyed the rank of an University, or, at least, that it should be disfranchised. We confess that the teaching is elementary, and adapted to the understanding of those who have had little previous instruction; and such we conceive, that the teaching of every thing to those who commence its study ought to be, even to the gownsmen of Oxford as well as the rabble of Edinburgh. This rabble, we are also proud to add, is no less remarkable for general propriety of conduct, than for zeal in the acquisition of professional knowledge.

Another charge is, that, at Edinburgh, the medical education may be finished by graduation in three years. We might answer, that at Oxford it is never begun. The reproach of the shortness of the period required to get a degree in Edinburgh, compared with that required in the English Universities, we have often heard, but it is not altogether well-founded; for, in the English Universities, the period is reckoned from the first enrolment of the student at an University, whereas, in Edinburgh, it is from their beginning to study medicine; and if to the three or more years of professional study were to be added the time previously spent in the study of literature and philosophy, it would be found, that many of the Edinburgh graduates had had as long, and even a longer course of academical instruction, than what is sufficient to obtain the degree of M.B. in the English Universities.

But our Oxonian seems to question the right of the University of Edinburgh to grant degrees.

'London has more anatomical advantages and better chirurgical means of instruction than Edinburgh; but it wants the same show of a sanction, though I believe degrees conferred by the different physicians of the hospitals of London, would be equally legal.' p. 27.

Edinburgh, as well as London, affords excellent opportunities of studying anatomy and surgery; but the idea of the physicians of the London hospitals granting degrees is so excessively absurd, that it would be wasting time to comment upon it.

This Oxonian also seems to pride himself upon the attainments necessary to undergo the examination of a candidate before the Royal College of Physicians of London, although, in comparing Oxford and Edinburgh degrees, the comparison should have been of the examination before the University, when, we apprehend, the advantage would have appeared on the side of Edinburgh.

'This examination is perhaps one of the most arduous that can imposed. For three several days the candidate is questioned in Lat on anatomy, physiology, pathology, therapeutics, and all ot branches of medical science; and thrice is he obliged to display knowledge of Greek literature, by reading publicly and extempo neously difficult passages of Aretæus, or some other medical classi p. 3, 4.

We believe that the graduate of Edinburgh undergoes the ve same examination for his license, with the exception of not bei *allowed* to show his knowledge of Greek; for it is distinctly our remembrance, that, upon one occasion, many of the lice tiates, feeling hurt at the title of *plus docti* assumed by the F lows, prayed to be examined in regard to their skill in the Gre tongue, and were refused. The inference is obvious.

Another dreadful stain upon the Edinburgh degree is, th the education required for it is not sufficiently expensive to pr vent all but the wealthy from obtaining it; that it supplies t less opulent parts of the empire and the colonies with physician and finally, that Scotch doctors often disgrace the title, by co descending to give their professional assistance to those who e pose themselves to the dangers of climate and of war, in the se vice of their country!

'Such schools, (alluding to Edinburgh), in the present extend scale of colonization, and martial temper of the empire, are beco absolutely requisite. Were the school of Edinburgh on the footi of the English universities, few would be the labourers going out harvest. For what highly accomplished physician would depart a sit down to be frozen in Newfoundland, Hudson's Bay, or the Or neys, or broiled for a pittance in the West Indies, or starved in a lit dirty Scotch, Irish, or Welsh borough, or waste his health, his vigo and his talents, amongst the outcasts and convicts of New Hollan &c. &c.' p. 35.

'It is well known, also, that Scotch doctors often become su geons in the army and navy. Now, no such instance was ever know of an Oxford or Cambridge doctor; and indeed it would be a degr dation, as the English universities in their doctorate give a rank abo colonels in the army, or captains of ships.' p. 38.

We have more of this nonsense about rank, as if the respec ability of a physician were independent of his individual chara ter and attainments.

'A physician, however, is not necessarily a Doctor. The En lish Universities may grant licenses to practise, to Masters of Ar Gentlemen who practise on such licenses are Physicians, and th rank is the same as that of Barristers and Clergymen, that is, th rank as Esquires. But in order to give dignity to so learned a useful a profession, the English Universities grant the rank of Do tor to those of mature age, not to beardless youths or striplings; and this rank elevates the individual above all Esquires not honourable, and above all Field-Officers not Generals or Admirals.' pp. 39, 40.

We are almost ashamed of having wasted so many pages upon this Oxonian; but as he is also a reformer, we must quote his plan of reform, which has at least the merit of simplicity.

> 'Let the College of Physicians sit as a quorum, in every part of England, where three Fellows can be assembled, to grant licenses. Let these licenses be granted without expense. Let none but English graduates practise without these licenses. If three Fellows cannot be assembled monthly in each county, to examine and to grant licenses, let one Fellow and two M. D.'s of Oxford or Cambridge, be a quorum. North of the Tweed, and for the Colonies, let Edinburgh and Glasgow grant licenses to practise.' p. 41.

V.

Philosophical Transactions of the Royal Society of London for the Year 1816. *Part I. and II.* 4to. London, 1816.

We must confess, that, as journalists, we have been very negligent in not regularly inserting such a notice of the titles, at least, of all the communications relating to our profession, which are inserted in this first of periodical works, as might at least serve the purposes of an index. In the volume before us, Sir E. Home, with laudable industry, contributes no fewer than seven papers, chiefly on his favourite subject of comparative anatomy.

No. IX.—Some account of the feet of those animals whose progressive motion can be carried on in opposition to gravity, pp. 149—156; illustrated by two engravings.

XXIII.—Further observations on the feet of animals whose progressive motion can be carried on against gravity, pp. 322, 331; illustrated by five engravings.

XXII.—Some further account of the fossil remains of an animal of which a description was given to the Society in 1814, pp. 318, 322; illustrated by four engravings.

XX.—On the formation of fat in the intestines of the tadpole, and on the use of the yelk in the formation of the embryo in the egg, pp. 301, 311.

The egg of the frog has no yelk. It consists of a substance intermediate between jelly and albumen, upon which the tadpole, as soon as it is formed, seems to feed. The progressive change of the tadpole, until it become a perfect frog, is curious.

' The spawn of the English frog was collected on the 1st of April, 1816. On the 15th, the tadpole left the egg; but the filaments or external gills were not visible, only a deep notch on each side, nearly separating the head from the body. On the 23d, the ten filaments on each side were distinct; on the 27th they disappeared. In June, the external orifice on the left side, for the water to pass off from the gills, was very distinct; but none was seen on the right. On July the 8th, the hind legs began to appear; but the toes were not separated. On the 14th of July, the hind legs were seen externally completely formed, and, on opening the skin of the chest, the fore legs were equally so; but there was no external projection by which this could be known. The lungs were completely formed. On removing the intestine, there was no fat deposited on the loins. On the 16th, the contents of the intestine were voided in considerable quantity. On the 18th, the elbows of the fore legs projected under the external skin; and so much of the contents of the intestine had been voided as to give a taper form to the lower part of the body. On the 19th, the fore legs were completely disengaged, and appeared externally; the mouth had become wide like that of a frog. The tail had a notch at that part where it afterwards separates; the intestine was reduced in diameter, and to the length of that of a frog; an appearance of oil was seen on the loins. On the 23d, the tail had dropped off, leaving the projecting root. The animal had left the water, and remained among the grass. Behind the intestines upon the loins were several small membranous appendages in an empty state.

' On the 28th, the root of the tail had wholly disappeared; the appendages had become more opaque. '

An examination of the tadpole of the Surinam frog, from its size, permitted some circumstances to be more accurately observed.

' Upon examining the tadpole of the rana paradoxa, just when the hind feet appear externally, I found the mouth very small, and nearly round; the teeth cuticular, the upper ones overlapping the under; the œsophagus, stomach and intestine, forming one uniformly continued canal, which passed down to the lower part of the abdomen; it was bent upon itself, passed up again, and then made a great number of coils in a circular form; its coats were very firm, its capacity very small. There were three gills completely enclosed on each side; and a little way below the eye on the left side, a small round orifice for the water, by which the gills are supplied, to pass out; but none on the right. When the tadpole is arrived at its full growth, and the hind legs are completely formed, which takes place, according to Mr IRELAND's observations, in 14 days after their first appearance, the cavity of the abdomen had become exceedingly enlarged, the intestine very capacious, its coats almost as thin as cobweb: it was completely distended, through its whole extent, with a soft substance, which, when burnt, had the smell of hay. Behind the intestine, all along the posterior part of the abdomen, a large quantity of fat was met with of a yellow colour, enclosed in long, thin, transparent membranous bags; no part of this fat was met with in the prior stages of the tadpole's growth. The lungs were completely formed.

'When the mouth of the tadpole has been changed into that of the frog, and the fore legs completely protruded, but the tail remaining entire, which happens 21 days after the last mentioned change, the large coils of intestine were found contracted into a canal one fourth of its original length; the coats had become as firm as those of an artery; the external surface was corrugated, and the canal empty. The stomach had become a distinct cavity; and there was a contraction, where it terminates in the intestine. All these parts were embedded in fat, which filled every part of the abdomen, not occupied by the liver, which had acquired a large size. The lungs were filled with air, and the gills had entirely disappeared.

'When the tail has dropped off, leaving the projecting root, which takes place in seven days more, the only internal change met with was, that no fat whatever was found in the cavity of the abdomen.' p. 303, 4.

From these facts, Sir Everard concludes, rather hastily, that such unusual length of intestine is required to admit of so large a quantity of fat being formed in so short time, and *therefore* that the intestine is the laboratory in which the fat is formed.

The second part of this paper contains also some good observations, though not very well connected; but we do not quarrel with this haste to communicate to others every thing one hears or sees, as much information is lost by those of an opposite turn of mind, withholding it from the public until it shall be rendered as perfect as they think it can be made, which of course seldom happens.

The ova of the frog, of the shell-snail, both of those that have a shell and those that have only a strong membranous covering, of the lobster, cray-fish, prawn, sea cray-fish, and crab, have no yelk, and they contain no oil; the ova of salmon and pike have no yelk, but contain a little portion of oil; the ova of the cartilaginous fishes, of the lizard and snake, have, like the egg of the hen, a regularly formed yelk, which consists principally and essentially, according to Mr Hatchett, of a butyraceous oil, combined with a small proportion of albumen. From these facts, Sir Everard concludes, that in all ova, the embryos of which have bones, there is a certain portion of oil, and in those whose embryos consist entirely of soft parts, there is none.

'This conclusion is much strengthened by the peculiarity which it has been my object in this paper to point out, of the tadpole laying up a magazine of fat before the metamorphosis into a frog takes place: it is therefore rendered probable, that a certain portion of oil is necessary for the formation of bone, and that the proportion in different ova corresponds with the greater or less degree of hardness of the bones of the fœtus.' p. 310.

We wish Sir Everard had prosecuted this investigation, and informed us to what store of fat the bones of the embryo of man and other mammalia owe their hardness, and whence this fat is obtained?

XII.—Experiments and Observations to prove, that the beneficial effects of many medicines are produced through the medium of the circulating blood, more particularly that of the Colchicum autumnale upon the gout. pp. 257–262.

XIII.—An appendix to the preceding paper. pp. 262–265.

It is much to be regretted, that medical men should so often transgress the rules of sound logic in drawing inductions, and that they should adopt so loosely the statements from which their conclusions are drawn. A remarkable instance of both obtruded itself upon our notice in the introduction to this paper.

'For the cure of the gout,' says the Honourable Baronet, 'the eau medicinale of Husson has been most fortunately discovered to be a specific remedy; and it is now ascertained, by experiments on different people, that a vinous infusion of the Colchicum autumnale, or meadow saffron, is equally so; and therefore the two medicines must be considered as the same.'

Here we have a conclusion without a *major* proposition; but not only is the conclusion illogical, but the two *minor* propositions are false.

The eau medicinale of Husson is *not* a specific remedy for the cure of gout.

A vinous infusion of the Colchicum autumnale is *not* a specific remedy for the cure of gout.

These two medicines are *not* the same.

For satisfactory proof of our negative assertions, we refer to Dr Scudamore's treatise, noticed in our last Number. At the same time, we have no doubt of the truth of the individual facts asserted by Sir Everard, regarding the action of these remedies upon himself.

As to the observations and experiments themselves, they consist in an account of the effects of 60 drops of the eau medicinale on the author himself, when under the influence of a violennt fit of the gout, and the history of three experiments, in one of which 60 drops of the vinous infusion of colchicum (made by infusing two pounds of the fresh roots in 24 ounces of sherry wine, in a gentle heat, for six days, the spirit being previously carried off by heat), were given to a dog; and in the others it was injected into the jugular vein, in the first in the dose of 30 drops, diluted with a dram of water, and in the other in the dose of 160 drops. The smaller dose produced a tremulous motion of the muscles and fluttering of the pulse, with some nausea. In 14 minutes the pulse increased in frequency, from 140 to 180 in the minute, but became intermittent. In four hours it still intermitted, but had fallen in frequency to 120, and was of natural strength. In seven hours the pulse was in every respect natural; the dog had a natural stool, and appeared in perfect health. The larger dose proved fatal at the end of five hours, after having produced, first, loss of voluntary motion, then tremors and great debility, with nausea, vomiting, and purging, the pulse being also rendered irregular and weak, beating, at the end of 10 minutes, 84 in the minute; of 20 minutes, 60; in an hour 115, and in two hours 150; the inspirations varying in like manner, being, in 10 minutes, 40 in the minute, which is the natural number; in 20 minutes 30, and in 1½ hour 54.

'On opening the body, the stomach contained mucus tinged with blood, and its internal membrane was inflamed; the duodenum had its internal surface universally inflamed; the same appearance, in a less degree, was met with in the jejunum and ilium, and more strongly marked in the colon than in the ilium.' p. 264.

These experiments are sufficiently satisfactory as to the action of colchicum, but the importance attached to them by their author is perfectly ridiculous.

'If these observations shall be confirmed, they must lead us to conclude, that the different kinds of substances, which produce specific diseases, are first carried into the circulation, in the same manner as mineral and animal poisons, and that the medicines by which they are acted upon, go through the same course, before they produce their beneficial effects. A material step will thus be gained in the consideration of diseases, and the modes of treating them.' p. 261.

Now, we must confess, that we are at a loss to discover in what this material step consists. Is it in the conclusion, that specific diseases, and their specific remedies, operate through the medium of the circulation? Or is it in the fact, that poisonous substances, such as colchicum, act in the same way, but more speedily, when injected into a vein, than when introduced into the stomach? As far as we can judge, Sir Everard means to give the merit of the latter discovery to his father-in-law, and to claim the former to himself.

'That other medicines can be received into the circulation, and, as soon as they arrive there, produce their effects upon different parts of the body, is proved by experiments made by the late Mr Hunter, although he had no idea of their being usually carried there before they produce the different actions so well known to follow their exhibition by the mouth. He found that infusions of the following substances received into the circulation by the jugular vein, immediately produced the same effects which more slowly follow their being taken by the mouth. Infusion of opium brought on drowsiness. Infusion of ipecacuanha, vomiting. Jalap, vomiting and purging. Infusion of rhubarb, a profuse flow of urine. These effects ceased in a few hours, and appeared to have in no respect injured the animal's health.' p. 258.

We have the charity to hope, that the sentence just quoted was written in ignorance; and yet it is a strange thing, that a vice-president of the Royal Society of London should be ignorant, that it was not reserved for Mr Hunter to prove, that medicines injected into a vein, immediately produced the same effects which more slowly follow their being taken by the mouth; or for himself to draw the inference, that they are usually carried into the circulation before they produce the different actions which follow their exhibition by the mouth. Not to mention the hundreds of experiments made by Orfila, for the very purpose of ascertaining whether each individual poison was or was not absorbed and carried into the circulation, before it produced its effects, of which Sir Everard might be perhaps really ignorant, when he thought he had made so great a discovery in the knowledge of diseases, and their mode of treatment; the opinion, that medicines taken by the mouth enter the circulation before they act, is an ancient and a common opinion. Haller,* in order to prove that absorption takes place from the stomach, says, 'Ostensum est, vim venenorum tunc potissimum operari, quando in ventriculo haerent, etiam belladonnae, opii, cicutae, oenanthes succo viroso.' Haller believes the absorption even to commence in the mouth. 'In oleum nicotianae in os felis instillatum, animalculum necat, totumque corpore, etiam cor, odorem veneni retinet, argumento, in venas fuisse resumtum.' p. 63.

Nor is Mr Hunter better entitled to the discovery which seems to be inscribed to him; for Haller occupies no less than six pages † of his immortal work to narrate the results of similar experiments made before he wrote, and subjoins above fifty references to different authors; but though we may conceive, that Sir Everard may not be in the habit of consulting so obsolete a work as that of the learned President of the Royal Society of Gottingen, or so heavy a publication as the Repertorium of

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* Elementa Physiologiæ, Vol. VI. p. 337, 4to, Bernæ, 1764.

† Vol. I. p. 226—232.

Plouequet, where he would have found five long closely printed columns of references on this subject, we cannot conceal our astonishment, that he should be so ignorant of the history of the Royal Society of London, of which he has the honour to be a vice-president, as not to know, that, shortly after its foundation, the Society promoted the performance of experiments of this kind; and that considerable pains were even taken to make good the claim of some of its own members to the invention of injecting liquors into the veins of animals, as well as of transfusing blood from one animal into another, which is a modification of the same experiment. Robert Boyle was the first who published an account of 'Experiments of conveying liquid poisons immediately into the mass of blood.' * Mr Oldenburgh then gave 'an Account of the rise and attempts of a way to convey liquors immediately into the mass of blood.' † Then we have 'an Account of some experiments of injecting liquors into the veins of animals, lately made in Italy by Signior Fracassati, Professor of Anatomy at Pisa.' ‡ In No. 30, there is an account of injecting medicated liquors into the veins, together with the considerable cures performed thereby, by Dr Fabritius of Dantzic. § Other experiments of the same kind, made at the same place by Dr Smith, are mentioned in No. 39. ‖ But the most distinct account of the origin of the discovery is in No. 35, by Dr Timothy Clarck, one of his Majesty's physicians in ordinary. ¶

'Circa finem anni 1656, aut circiter, mathematicus ille insignissimus, D.D. Christophorus Wren primus infusionem variorum liquorum in massam sanguineam viventium animalium excogitavit et Oxonii peregit. Anno sequenti, viz. 1657, idem mihi tunc temporis, sanguinis naturam provirili indaganti, quæ ipse fecerat, etiam communicavit, ex quo tempore diligenter ad diversa hujusmodi experimenta facienda me accingebam.' p. 678.

'Etsi enim per plus quam duo annorum lustra præterita, diligenter in miscendis variis cum animalium viventium sanguine liquoribus sudaverim, nec solum potulenta diversa, usque ad libras duas, in mas-

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* Some Considerations touching the usefulness of Experimental Natural Philosophy. By the Honourable Robert Boyle, Esq. F.R.S. 2d edition, 4to. Oxford, 1664. Vol. II. p. 53.

† Philosophical Transactions, No. 7, Dec. 4, 1665. Vol. I. p. 128.

‡ Do. No. 27, September 1667. Vol. II. p. 490.

§ Do. No. 30, December 9, 1667. Vol. II. p. 564.

‖ Do. No. 39, September 21, 1668. Vol. III. p. 766.

¶ Do. No. 35, May 18, 1668. Vol. II. p. 677.

sam sanguineam infundi et misceri curaverim, sed etiam emetica, cathartica, diuretica, cardiaca, et opiata isto modo exhibuerim.' p. 677.

The controversy about the discovery of the transfusion of blood from one animal into another, and into man, is noticed, and sometimes at great length, in Nos. 19, 20, 22, 25, 28, 30, 32, 36, 37, 42 and 54.

No. XXI. On the structure of the crystalline lens in fishes and quadrupeds, as ascertained by its action on polarised light. By David Brewster, LL.D. &c. In this paper the ingenious author proves, that the crystalline lens in fishes is not symmetrical; and that the variations of density in its structure correspond to the diameter which forms the axis of vision.

No. VI. Some observations and experiments made on the Torpedo of the Cape of Good Hope in 1812. By John T. Todd, late surgeon of his Majesty's ship Lion.

We quote the conclusions as drawn by the author.

1. That the electrical discharge of this animal is in every respect a vital action, being dependent on the life of the animal, and having a relation to the degree of life and to the degree of perfection of structure of the electrical organs.

2. That the action of the electrical organs is perfectly voluntary.

3. That frequent action of the electrical organs is injurious to the life of the animal; and, if continued, deprives the animal of it. Is this only an instance of a law common to all animals, that by long-continued voluntary action they are deprived of life? Whence is the cause of the rapidity with which it takes place in this instance? Or is it owing to the re-action of the shock on the animal?

4. That those animals, in which the nerves of the electrical organs are intersected, lose the power of communicating the shock, but appear more vivacious, and live longer than those in which this change has not been produced, and in which this power is exerted. Is the loss of the power of communicating the shock to be attributed to the loss of voluntary power over the organ? Does this fact bear any analogy to the effects produced by castration in animals?

5. That the possession of one organ only is sufficient to produce the shock.

6. That the perfect state of all the nerves of the electrical organs is not necessary to produce the shock.

And, 7. From the whole it may be concluded, that a more intimate relation exists between the nervous system and electrical organs of the torpedo, both as to structure and functions, than between the same and any organs of any animal with which we are acquainted. And this is particularly shown, 1*st,* By the large proportion of nerves supplied to the electrical organs; and, 2*d,* By the relation of the action of the electrical organs to the life of the animal, and *vice versâ.* pp. 125, 126.

VI.

Transactions of the Royal Society of Edinburgh. Vol. VIII. Part I. 1817.

THE same reason which induces us to give an analysis of the papers in the Philosophical Transactions connected with our profession, renders one of the publication of the Royal Society of this place, expedient; and it is even more necessary, as the papers which it contains are less generally known. The part before us is of great interest. Besides containing papers of great ingenuity and ability, in other departments of science, we find the following connected with our own.

No. VI.—Additional communications respecting the blind and deaf boy, James Mitchell. By John Gordon, M.D. F.R.S. Edin.

VII.—On the Education of James Mitchell, the young man born blind and deaf. By Henry Dewar, M.D. F.R.S. Edin.

These chiefly relate to an unsuccessful attempt to teach him to read, and the proposal of another method which has not yet been tried.

No. XI.—An analysis of sea-water; with observations on the analysis of salt-brines. By John Murray, M.D. F.R.S. Edin.

XIV.—A general formula for the analysis of mineral waters. By John Murray, M.D. F.R.S. Edin.

These papers must be carefully studied by those who are interested in chemical analyses, as the ingenious views and accurate observations found in them, do not admit of being condensed into a short space. Besides pointing out various processes and precautions to obtain greater accuracy in the result, he shows, that the apparent ingredients of sea-water differ according to the mode of analysis employed, or according to the view taken of their supposed state of combination; and from Dr Murray's remarks it is evident, that the best way of stating the composition of any mineral or saline water, is to mention the quantity of the elements of its salts. Thus, in a pint of sea-water of the Firth of Forth, taken at a distance from any fresh water, the elements were,

Lime,	2.9	grains.
Magnesia,	14.8	
Soda,	96.3	
Sulphuric acid,	14.4	
Muriatic acid,	97.7	
	226.1	grains.

The general formula for the analysis of mineral waters possesses so many advantages, that we would suggest to Dr Murray the propriety of printing it separately, with its application to each kind of mineral water, for the benefit of those who are not very conversant in chemical operations.

No. XIII.—Account of the remarkable case of Margaret Lyall, who continued in a state of sleep nearly six weeks. By the Reverend James Brewster, Minister of Craig. Communicated by Dr Brewster.

This is a very singular but well authenticated case of lethargy, recurring several times in the same individual, a girl of 21 years of age, servant in a respectable family. The periods during which it lasted were,

1*st*, From the morning of June 27, 1815, to the afternoon of June 30.

2*d*, From the morning of July 1, to the afternoon of July 30.

3*d*, From the morning of September 27, fifty hours.

4*th*, From the morning of October 11, fifty hours.

This unfortunate girl enjoyed good health during the remainder of her life, to which she put a period by suicide, on September 21, 1816.

VII.

Observations and Inquiries into the Nature and Treatment of the Yellow, or Bulam Fever, in Jamaica and at Cadiz; particularly in what regards its primary cause and assigned contagious powers. Illustrated by Cases and Dissections, with a view to demonstrate that it appears divested of those qualities assigned to it by Mr Pym, Sir J. Fellowes, and others. In a Series of Memoirs. By Edward Doughty, Member of the Royal College of Surgeons of London, and Surgeon to the Forces. London, 1816. 8vo, pp. 238.

Yellow fever, its causes and method of cure, are subjects of such importance, and upon which the opinion of those qualified in every respect to judge, are still so much at variance, that no apology is necessary for introducing to the notice of our readers every respectable work which treats of it.

The publications of Sir James Fellowes and Dr Pym made a strong impression on the public. Many anticontagionists were converted, we mean among those who had not themselves witnessed the disease; for we may observe, that those who, upon such points, form their opinion from personal observation, scarcely ever alter it. We, however, who have no experience in this instance to appeal to,—who only know the disease from the writings of others,—who have not regulated our practice by our theory, and can, therefore, renounce the one, without regretting the other,—we are less steady in our opinions,—we are perplexed with opposite experiences, and discordant statements,—we suspend our judgment on account of the suppression of circumstances, which, if detailed, would perhaps have no effect in directing it; while, on the other hand, the minute observations which decided the opinion of our authors, are either overlooked by us, or undervalued. The actual observers all seem to become *parties* in the cause; we, who never saw it, pretend to *judge*.

Upon us, therefore, we acknowledge, that the high situation, the great opportunities for collecting information, and the extensive personal experience of Sir James Fellowes and Dr Pym, together with the arguments and reasoning by which they supported their opinion, had very great weight; but we willingly receive and attend to further evidence. Mr Doughty is convinced, that contagion has little or nothing to do in the production of the fever which is so fatal in the West Indies, and in Spain; and his opinion, which deserves great attention, is the result of considerable personal experience and observation. He arrived in Jamaica in September 1800, as a regimental assistant surg on, and remained there eight years. He was a staff-surgeon in Lord Lyndoch's brigade, on the unfortunate expedition to Zealand; and he was in Cadiz during the fatal fever of 1810. His opportunities for observation, then, have been ample, and he has zealously taken advantage of them. Indeed, we are sorry to find that he was, for a time, removed from the service for a little excess of zeal. Having applied to his superior for leave to open a body at Cadiz, under peculiar circumstances, he got a refusal.

'Disappointed in my wishes, and thwarted in my endeavours to acquire every possible information respecting so destructive a disease, I, in a moment of irritation, expressed my sentiments too warmly, in a letter addressed to Sir James Fellowes, which were considered, and which I now admit to be, incompatible with military decorum. *Nemo mortalium omnibus horis sapit.* The sequel of the business was a dismissal from his Majesty's service.' p. 89.

We are happy, however, to learn, that, by the kindness of Sir James M'Grigor, and the liberal consideration of the Duke of York, he has lately been restored to the rank of staff-surgeon.

The first part of the work contains 'General Observations on Yellow Fever, its Cause and Treatment.' The second part is 'Memoirs of the Fever in Cadiz in 1810, illustrated by Cases and Dissections;' and the last part is a 'Recapitulation.'

We do not mean to enter into any detailed analysis of this publication, which is very well deserving of attentive perusal; but shall content ourselves with a short extract from the Recapitulation, in which the opinion of the author as to the cause of the disease is briefly expressed.

'It will be seen, from what I have stated in the two preceding parts of these memoirs, that I consider the general cause from which the fevers in the West Indies and Andalusia arise, to be generated by a particular quality of the earth; and that marine exhalations, or *marsh miasmata*, are not necessary to explain the source of Yellow Fever; but that this order of disease may be produced where no marshes are to be found.

'Any surface of earth exposed to a degree of heat and drought for three or four months, equal to that which prevails between the Tropics, may, by the concentrated accumulation of that principle in nature, from which vegetation is produced, engender a power, which, in the extrication of that principle, is capable of producing fever. I do not by this argument mean to deny that *marsh miasmata*, or any other *miasma*, from decomposition of vegetable and animal substances, will not produce fever of the same order with the above.

'In inter-tropical climates, or others, where a certain degree of temperature prevails, in which fevers predominate, whatever may be the cause, the effects I infer will be the same.

'But I lay it down as a general principle, that heat and drought do produce in the earth the power I have supposed; and which power varies in degree from the several circumstances of fertility, locality, and season. I repeat, in proportion to the excess of heat, continuance of drought, and quality of the soil, whether by nature, or rendered so by the habitation of man, will be the relative virulence of the morbid principle.

'In proportion to the age, sex, vigour of constitution, and time of residence within the sphere of action of the exciting cause, will be the susceptibility to its influence, and consequent effects produced. Whatever may be the degree of fever hence created, whether of the mild remitting, or most aggravated form, named Yellow or *Bulam*, I deny that it has a power of propagating itself "by a specific contagion," directly applied. That is, a person labouring under yellow or *Bulam* fever, in its most concentrated form, will not communicate the disease to another in perfect health, who, by duty or inclination, remains for a short time, or during the progress of the disease, whether fatal or otherwise, in the same apartment with the body so affected; more especially if the sick person is removed after his attack to an apartment beyond the sphere of action of the general cause, and the person in attendance has not been exposed to that same general cause.

'I know, by long experience, that the emanations from an individual body attacked with yellow fever, in its most violent degree, are seldom noxious to the senses, and I believe never prejudicial to the system, neither are they for a considerable time after the body is entirely divested of the vital principle; as I have witnessed in the examination of more than a hundred, by dissection, who had fallen victims to this disease. I have said *contagion directly applied*, because I am not prepared to say, whether a great number of persons labouring under Yellow Fever, in its violent form, and crowded into an ill ventilated apartment, or circumscribed space, as on board of ship, might not create a morbid atmosphere, of power sufficient to produce fever *sui generis*. At least, the atmosphere, impregnated with a general cause, might be rendered more virulent by the accumulated effluvia arising from numerous bodies labouring under the disease. As, for instance, a person exposed to the exhalation from the earth, or any other *miasma*, which has created fever in several, but, whose susceptibility to its influence being less, has escaped, may, by the further exposure to the accumulated effluvia of many bodies affected with the disease, have febrile action produced. This, however, I only state from supposition: I am not acquainted with any instance of it from actual observation.' pp. 207—210.

VIII.

A Treatise on Tetanus, Illustrated by a Number of Cases. By JOHN MORRISON, M. D. Newry, 1816. 8vo, pp. 122.

We have been much pleased with this little treatise. It is totally devoid of pretension, and, at the same time, is commendable, both on account of its plainness and perspicuity, and of its being the result of much actual observation. Nothing can be more concise, yet satisfactory, than the following medical topograpgy of Demerara, which was the scene of our author's practice.

'I was led to the following observations on Tetanus, by its frequent occurrence in the colony of Demerara, where I practised medicine for eight years. This part of the continent of South America is in latitue 6° 40′ long. 55, N. The land is low, flat, and marshy, abounding with swamps, and (with the exception of a stripe along the coast and on the banks of the river, in the cultivation of sugar, coffee, and cotton) is covered with trees of various dimensions, whose roots, for a great part of the year, lie bedded in water.

'The seasons are divided into the wet and dry. These succeed each other at uncertain intervals, and are of different durations in different years. Moist and rainy weather is by far the most usual; yet there are, now and again, weeks or months of almost intolerable drought.

'In 1804, the "dry season" was so intense and long continued, that the woods immediately adjoining the cultivation took fire—communicated their flames to some of the cane fields, and a considerable part of the country continued in a blaze for several months.

'The thermometer, during the *rainy* season, is seldom below 76, or in the *dry*, above 86. The diseases most prevalent are intermittents; fever, attended with an inordinate secretion of bile; hepatitis; enteritis; rheumatism; dysentery; and, among children, hydrocephalus is a very common complaint. The subject of this treatise is in that part of the world (compared with its occurrence in Great Britain) frequently met with.' p. 5.—7.

The first section treats of the symptoms, prognosis, and diagnosis, of tetanus, the next of its treatment, and the last contains the detailed report of nine cases. For many curious facts in regard to the history of the disease, we must refer the student to the work itself; and we shall only quote, as a specimen of the style, Dr Morrison's observations on the effects of the cold and hot bath in this disease, as they are at variance with a very popular opinion.

'For the first two or three years of my residence in the colony of Demerara, and in the first eight or ten cases, I invariably used the cold affusion, as directed by Dr Currie, in his excellent "Reports;" but I cannot say with any thing like that success which I thought I had reason to expect. By degrees, my faith in this so much extolled remedy became shaken, and I latterly (and in by much the more successful instances of my experience) left it entirely off, and have repeatedly used a directly opposite mode—the warm bath, with much happier results.

'At a time when I was beginning more than to question the efficacy of the cold affusion, a circumstance occurred, which rather confirmed me in the opinion, that it was by no means worthy of that confidence so generally placed in it. A stout healthy man, belonging to plantation New Hope, got an attack of the disease in its idiopathic form, and had been treated, under my own direction, with large quantities of opium and wine, which seemed for several days to have at least arrested the complaint. I now directed the cold affusion to be used with him, as a possible means of assisting the other treatment, conceiving it, at the same time, a fair opportunity (as far as one instance goes) of ascertaining the virtue of the means revived, and so much recommended, by Dr Wright. I stood by while he underwent the affusion twice, but had the mortification of witnessing my patient die a very few minutes after he had undergone the second operation.

' This was the third case of tetanus which I had met with on the same plantation, within a few months of each other, with all of which I had ordered the cold affusion, and they all died. This circumstance made such an impression on the proprietor of the plantation, a most humane and well-informed man, that he requested me never to use the cold bath again with any of his negroes in this disease.' p. 46—48.

' The *warm bath* should be regarded rather in a favourable point of view; it has afforded much present relief in several occasions under my own eye: Where, especially, the spasmodic twitchings were frequent and troublesome, I think I have witnessed evident benefit arise from its application; these startings became less frequent and severe, and the sufferings of the patients much alleviated. In a case of that variety of the complaint, termed *Opisthotonos*, the warm bath was attended with the most soothing effects. The patient was put into a hogshead of hot water, three times a day, and remained in it, to his great satisfaction, for eight or ten minutes, when the spasms were evidently much relaxed, and his sufferings relieved. Doctor Chalmers speaks very favourably of the warm bath, and advises his patients " to lie horizontally in the bath, and while in it to have the whole body extremely well rubbed; when taken out, they are not to be dried, but immediately put to bed, wrapped in the softest blankets, and while they remain there, the belly ought to be stuped, or two or three bladders filled with warm water kept constantly to it." This, with large doses of opium, is what Dr Chalmers principally depends on.

' Patients most commonly express themselves relieved while in the warm water; and of the two, I am decidedly of opinion, that it is attended with better effects than the application of cold water. I must observe, however, that the greater number of cases that latterly came under my charge, and which in the end recovered, underwent neither the cold nor the warm bath; and I am persuaded the effects of either are far inferior to the use of opium, wine, and mercury.' p. 59—61.

In praise of opium Dr Morrison speaks in the strongest terms.

' *Opium.*—This substance, either in the solid form or in that of tincture, will be found, of all others, the most valuable in this horrible disease. I have met with more than a dozen instances, where I could fairly attribute the cure to this medicine alone; and I have met with no instance of recovery, in which I did not conceive that it bore a very principal part. It must be given, however, in much larger doses than are usually practised.

' There need be little or no apprehension of any unpleasant consequences from quantities, which, in any other disease, would bring on very alarming effects, the system under tetanus being little affected by doses of this medicine, which, at first view, would appear enormous. A practitioner, for whose acuteness and discernment I have great respect, gave to an old man, in my presence, who was in an incipient stage of this disease, about half an ounce of tincture of opium, in four ounces of rum, as *a first dose*, directing, at the same time, the spirit to be frequently repeated; and the man got perfectly over the complaint in a few days.

'In most of all the cases of cure attributed to the cold affusion, opium, in large quantities, was given at the same time. Dr Cochrane's patient, whose recovery is attributed to the cold bath, got no less than two hundred drops of tincture of opium a day; and in the twenty-three cases so hastily run over by Mr Dickinson, those that recovered, with very few exceptions, swallowed opium, as we are to suppose, in very considerable quantities. To an adult in this disease, I would never begin with less than one hundred drops of the tincture of opium, (bowels being opened), increasing each succeeding dose one third every two hours, unless sleep or stertor in the breathing ensue: ordering, at the same time, wine or ardent spirits, in as large quantities as the patient can be induced to swallow. I have generally directed the tincture of opium to be given in two or three ounces of brandy or rum; and my patients most commonly took, on a moderate calculation, a pint of spirits, or double that quantity of wine if preferred, in the course of the day. In addition to this, I have frequently ordered the spine to be well rubbed with the tincture, three or four times a day.

'Some think highly of the vapours of opium inhaled, as a good means of introducing this substance.—Of this I have not made trial.' p. 56—59.

IX.

An Answer to Doctor Kinglake; showing the Danger of his Cooling Treatment of the Gout. By John Ring, Member of the Royal College of Surgeons in London, and of the Medical Societies of London and Paris. London, 1816. 8vo. pp. 165.

A very short extract from this work will serve to give an example of the temper in which it is written; and to show the strong conviction, in the mind of the author, of the truth of what he advances concerning the danger of the cooling treatment.

'Let Dr Kinglake rail as long as he pleases; but should I ever be so unfortunate as to be tormented with the gout, I would rather endure that torment, or even put myself under the care of Dr Reece, and take his gout cordials, or the saturnine poison which he so liberally recommends as a panacea, than follow the advice of so rash and indiscreet a practitioner as Dr Kinglake, and plunge a gouty limb into cold water.' p. 4, 5.

PART III.

MEDICAL INTELLIGENCE.

REPORT of DISEASES treated at the EDINBURGH NEW TOWN DISPENSARY, *from December 1st,* 1816, *to March 1st,* 1817.

	No. of Cases.
Febris continua - - - - -	49
——— ephemera - - -	13
——— intermittens - - -	1
——— dentitionis, et infant. remitt. - - - - - -	79
Apoplexia - - - - - - -	2
Hydrocephalus - - - -	3
Cephalæa - - - - - - -	29
Convulsio - - - - - -	2
Epilepsia - - - - - -	6
Chorea - - - - - - -	1
Ophthalmia - - - -	54
Cataracta - - - - -	1
Amaurosis - - - - -	1
Epistaxis - - - - - -	3
Otalgia et surditas - - -	9
Odontalgia - - - - -	17
Aphthæ et ulcera faucium -	6
Cynanche tonsillaris - -	14
Dysphagia - - - - - -	1
Catarrhus - - - - -	139
Pneumonia - - - -	23
Pleurodyne - - - -	22
Phthisis - - - - - -	33
Asthma - - - - -	19
Hydrothorax - - - -	7
Pertussis - - - - - -	29
Palpitatio - - - - - - -	2
Carditis - - - - -	3

	No. of Cases.
Scirrhus mammæ - - - -	1
Hepatitis acuta - - - - -	1
——— chronica - - - -	7
Icterus - - - - - - -	6
Gastritis - - - - - -	1
Dyspepsia - - - - -	99
Hysteria - - - - - -	18
Enteritis - - - - - - -	3
Peritonitis - - - - - - -	4
Obstipatio et colica - -	41
Cholera - - - - - - -	3
Melæna - - - - - - -	1
Diarrhœa - - - - - -	52
Dysenteria - - - - -	4
Scirrhus recti - - - - -	1
Vermes - - - - - -	26
Fistula in ano - - - - -	2
Hæmorrhois - - - -	2
Tabes mesenterica - - -	9
Hernia - - - - - - -	3
Tympanites - - - - - -	1
Hydrops - - - - - - -	8
Ascites - - - - - - -	5
Hydrops ovarii - - - - -	1
Dysuria - - - - - - -	6
Gonorrhœa - - - - - -	2
Cystitis - - - - - - -	1
Paraphymosis - - - - -	1
Hæmorrhagia uteri - - -	6

	No. of Cases.
Suppressio lochiæ	1
Leucorrhœa	11
Scirrhus uteri	1
Prolapsus uteri	1
Amenorrhœa	12
Dysmenorrhœa	6
Rheumatismus	58
Paralysis	6
Asthenia	3
Morbus spinalis	4
Caries et necrosis	1
Rachitis	1
Scrofula articulorum	3
——— glandularum	9
Syphilis	3
Pseudo-syphilis	4
Tumores	11
Phlegmon	26
Paronychia	3
Mastodynia	7
Erysipelas	6
Pernio	3

	No. of Cases.
Varicella	2
Urticaria	3
Rubeola et sequelæ	173
Scarlatina	4
Strophulus	2
Lichen	9
Intertrigo	2
Lepra	2
Psoriasis	9
Purpura	1
Impetigo	11
Porrigo	28
Ecthyma	3
Psora	32
Herpes	13
Acne	1
Vulnus	13
Ustio	10
Contusio et subluxatio	35
Luxatio	1
Fractura	2

The weather which has prevailed during the winter months, must be considered as mild in this climate. The falls of snow, and the frosts which have occurred, have been so moderate and transient, that, notwithstanding the extreme lateness of the preceding harvest, agricultural labour is now as far advanced as is common at this season of the year. There has, however, been no season more remarkable for sudden and great fluctuations, both in the temperature and moisture of the atmosphere; and these, as might be expected, have been productive of much sickness. This has been increased among our class of patients, at this time, by deficient diet, scanty clothing, alternate hard labour and total idleness, with the depression of spirits arising from want of employment. Hence, catarrh and pneumonia, rheumatism, and diseases of the alimentary canal, constitute the most prominent features of the present Report.

The catarrh which has prevailed has been decidedly inflammatory, approaching, in some instances, very nearly to pneumonia; but, in almost all the cases where it was early noticed, it has yielded to a single full bleeding, moderate evacuation from the bowels, and diaphoretics, with confinement to the house for a few days. * In some cases it was found necessary

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* This latter point was much facilitated by the Committee of the

to follow this up by blisters; and in others, again, where the cough was moderate, and the pain of breast or side seemed local, a blister, without previous bleeding, was sufficient. In a few cases, where the disease occurred in a worn-out constitution, or where it extended to lungs already impeded in their functions, by old adhesions, or organic disease, the patients have, in spite of all remedies or care, become phthisical. The same dreadful consequence has followed in previously healthy constitutions, where apathy and ignorance have neglected application, or disregarded advice, till too late. Of this culpable negligence on the part of patients or their friends, we have seen some fatal examples. It is this neglect or indifference on the part of patients to apply early, and to give regular attendance, which forms one of the greatest obstacles to dispensaries being as useful as they otherwise might be; but there seems to be no better means of obviating this evil, than by affording every facility of application to the indigent sick, even under trifling ailments.

In the cases of decided pneumonia, the most marked benefit has been derived from the rapid abstraction of a large quantity of blood at first. In some, even severe cases, it has appeared to arrest at once the progress of the disease, by the very decided relief from pain and ease of breathing which it conferred on the patient, both immediately and permanently. In two cases, continued fever followed the remission of the inflammatory symptoms, and rendered it necessary to support the patients very assiduously. Both recovered.

While inflammatory catarrh and pneumonia have been thus rife, we have seen nothing in our dispensary practice like an epidemic or influenzal form of the former disease. Catarrh has also been much less prevalent among children than we had occasion to remark in our last year's report of this season; and, indeed, except as one of the sequelæ of measles, the children of the poor have enjoyed a remarkable exemption from it.

The measles, of which so many cases appeared in our last report, continued to prevail very generally during the month of December, and the early part of January. Since this time the epidemic has very rapidly declined; and, of the cases which have since occurred, a large proportion has been at Stockbridge, and in the other suburbs of Edinburgh. They were, in general, mild, and easily managed. In one case, symptoms

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Fund for the Relief of the Labouring Poor, having liberally allowed their wages when confined by sickness.

closely resembling croup took place about the sixth day of the complaint, but soon yielded to leeches, the warm bath, and the usual antiphlogistic treatment. In the higher classes, among whom this epidemic spread very extensively about six weeks after it prevailed amongst the poor, and where the children enjoyed superior advantages of care and accommodation, the symptoms were throughout its course generally mild; and even among the poor it would seem true of this, as has been observed of other epidemics, that the disease assumes a milder form towards its decline than either at its rise or during its progress.

The usual sequelæ of measles still prevail, and require much of our attention. In some cases they have appeared in the form of an inflammatory affection of the chest, so well marked, as, notwithstanding the previous debility of the little patients, to require repeated small blood-lettings, both general and topical, and the reiterated application of blisters. Though this is a practice which requires to be managed with caution, we have no doubt that it is the only one which can be adopted with propriety in such cases.

A few isolated cases of scarlatina have come under our notice during the last three months, three of which were very malignant, and two of them proved fatal; yet the disease has not spread epidemically.

Dyspepsia and rheumatism form also a considerable list in this report. Dyspepsia is perhaps at all times the most generally prevalent chronic disease, both among rich and poor; but, among the latter, it is increased and aggravated at present by the circumstances in their condition, to which we have already alluded. Dyspepsia is always difficult of management, and of cure; but when arising from such causes as we have stated, it can be little benefited by mere medical treatment, and can be cured only by a removal of the causes which give rise to it.

The rheumatic attacks, though not strictly chronic, were very generally confined to the back and shoulders, and occurred chiefly among those who were driven, by want of employment, from sedentary and in-door occupations, to labour at the public works in the open air. The exertion of digging and using the pickaxe to those unaccustomed to such labour; and their exposure to rain, snow, and cold, in the stooping posture, while inadequately clothed, are sufficient to account for the prevalence of these rheumatic attacks. Relief from work, confinement to the house, with gentle diaphoretics, soon removed the complaint in most of the cases.

It will be remarked, that the number of cases of continued fever, is much greater than in any of our former reports; and we have reason to believe, that this disease has prevailed more generally in Edinburgh for these last three months, than for several years past. In several instances, it has appeared to be contagious; but though, in a few cases, it has proved fatal, apparently from affection of the brain, it cannot be considered as a malignant typhus; as, in no instance, have we known it to have been accompanied with putrid symptoms, such as petechiæ or vibices. In most of the cases, the symptoms were mild throughout the disease, and required almost no medical treatment, except due attention to ventilation, to keeping down any slight vascular reaction, by sponging the body, by diluent drinks, and by giving laxatives, so as to keep the bowels open. It is somewhat extraordinary, that, in several cases of this apparently contagious fever among the higher classes, which have come under our observation, the disease has been more severe and more fatal than among the poor.

In the midwifery department during the last three months, the number of applications has been 111, and the number of deliveries 116. Of these there were 105 natural labours; one preternatural, in which the breech presented; three complex, viz. two cases of twins, and one of flooding from atony of the uterus after the extraction of the placenta; and seven premature labours. In one of the last mentioned, in which, as near as we could ascertain, labour came on about the sixth and a half month; the child lived eleven days. On the fifth day after its birth it weighed *two pounds nine ounces and three quarters*, avoirdupois. Of the children born there were 62 boys and 56 girls.

Extracts from a Letter from a Physician in London.

1. *Poisoning by Oxalic Acid.*

THIS year (1816) two pretty decisive cases of death have been occasioned by oxalic acid. In both of them it was swallowed by mistake for sulphate of magnesia, and, as the purgative dose of this salt is well known among the common people to be at least half an ounce, although we do not know the quantity accurately of the acid taken, it is most likely the quantity was not less than three or four drachms. In one case, death ensued in a few hours; most acute pain being produced. The stomach after death was found studded with large black spots; the texture was as if broken and gangrenous, from very rapid inflammation. It seems the oxalic acid is much used for cleaning boot-tops, but whether it is prepared from salt of sorrel, a comparatively small commercial article, imported, I believe, from Swabia, or is made from sugar and other things by means of nitric acid, I do not know.

It is the great quantity which is deleterious. We have abundant experience of the harmlessness of small quantities of salt of sorrel in sauces, in medicines, and in drinks. Would not citric, tartaric, malic, and other vegetable acids, be equally noxious in large quantities?

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2. *Hydrophobia Contagiosa.*

IT seems quite useless, and a neglect of opportunities of improvement, to continue to employ the best measures in repute, such as blood-letting profusely, opium, mercury, balneo, musk, pulvis antilyssus, &c. There is no credible evidence that any one of these, or several conjointly, have succeeded. The few asserted cures by the best of the evidences, are now believed by the most judicious, to have been deceptions;—that the cases cured were inflammatory affections of the pharynx, or œsophagus, or cardia, producing the dysphagia resembling that from the contagion of a mad animal of the canine or feline genus. New measures should be tried; I will suggest some new mode at a future time.

A boy of 14 years of age fell a victim to this horrible disease in one of our London hospitals this very week. I was informed he had been bitten by a mad-dog five weeks before the hydrophobia came on. There was nothing peculiar or new in the symptoms; except that, by very resolute exertions, he could swallow three or four ounces of liquids several times. Death relieved the poor sufferer in about three days time.

Dissection showed the pharynx in a state like that from inflammation, extending to the larynx, and down the aspera arteria, and its bifurcation, to the lungs; but this appearance did not take place, as is usual, in the œsophagus, down to the cardial region of the stomach.

Nothing morbid was seen in the brain, nor in any other viscera.

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3. *Syphilis Cured without Mercury.*

A very respectable surgeon, who has the best means of determining practical questions, has reported, that so many cases of venereal ulcers, and venereal sore throats, have got well without a grain of mercury, that he considers the human constitution, as possessing natural powers adequate to the cure of a disease, in which it was believed to be fully ascertained that nature was utterly insufficient. These reports, from so respectable a man, have staggered many physicians; have produced belief in a few persons; and are not credited by others: But, perhaps, the most judicious opinion, at present, is, that in certain varieties of the lues, or in certain constitutions, the diseases are remediable without mercury. This limitation of the use of mercury, if established, will be a great practical improvement, for obvious reasons. It is some confirmation of the new opinion, that the proportion of cases deemed formerly to be venereal, is of late much diminished in the practice of the most experienced and skilful men of the profession. Still, however, opposite opinions are given in certain instances, by physicians of the first rank, as to the disease being syphilitic, or not, and of the fitness of the use of mercury. Of consequence, the distinguishing characters of many ulcers and eruptions, are not yet investigated, or, at least, are not evulgated, although more observations have been made in the united empire, than in any other country.

4. *Frequency of Chronic Laryngal Affections.*

EITHER Cullen, and other systematics, overlooked these disorders, or they have become, of late, much more frequent occurrences. Many of these cases are very insidious; for the larynx does not appear to be so sensible an organ as hath been supposed. I have known the cricoid and arytænoid cartilages, with the epiglottis, become so thickened and indurated, that a very little aperture was left for the admission and exit of air, yet no pain was expressed, even on handling the part roughly. The voice was greatly affected, and there were frequently coughing fits with a peculiar sound. The patient ate and drank as usual, and walked about. In an instant suffocation took place.

5. *Rheumatic Hearts.*

CULLEN also, to the best of my memory, had no notion of the connexion between rheumatism of the joints and of the heart. The late Dr David Pitcairn was the first observer and reporter of the affection of this vital organ in the acute rheumatism. This accounts for many unlooked for deaths, and suddenly, in this disease. Dr Fordyce, and others, referred these instances to metastases, without any proof, however, but the delirium supervening and preceding dissolution. The supervening affection of the heart does not always kill during the rheumatism; it frequently remains as a chronic disorder for many months, or a year or two; and now and then, during this time, the patient drops down dead unexpectedly, while walking at a moderate pace: But, generally, death is occasioned by water in the pericardium and other cavities; by adhesion, with thickening of the pericardium, to the heart; or by a great quantity of coagulated lymph upon the surface of the heart and pericardium; and generally, too, this organ of the circulation is enlarged. Latterly these affections have been observed very commonly, but without proving fatal. Even in chronic cases, subsequently to the rheumatism of the joints, I have succeeded in remedying some of them.

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6. *Is the opinion founded on facts, that Opium prevents or restrains Expectoration?*

In practice, where it is believed expectoration would be beneficial, as in inflammatory affections of the secreting membrane of the air tubes, and of the intervening connecting cellular substance of the lungs, it is very usual, in consultations, to hear the objection stated, that opium would be injurious, by preventing expectoration, or, if it has taken place, that it will produce mischief by restraining it. Hence it is not prescribed, although the poor patient is harassed by watching for many days and nights, is much exhausted by a teazing cough, or is exceedingly debilitated by pains of the chest, or by dyspnœa. Such occurrences are common in phthisis, in peripneumonic, in pleuritic, and in catarrhal affections. Having, in hundreds of such cases, been induced to exhibit this drug, from the consideration, that more mischief would arise from not exhibiting it, than from its administration, and that without any cause for subsequent repentance on the accounts just mentioned, but, on the contrary, with frequently the most decided benefits from subduing disease, and even a more easy and copious ensuing expectoration, I should, to speak from my own experience, assert, that the opinion of the restraining power of opium on the bronchial secretion, is not founded on accurate observation. The same experience inclines me to believe, that, in many pulmonic inflammations, it is quite out of the power of the physician to excite expectoration, by any means hitherto discovered; and that, if he were able to produce it, the discharge would be of no service, supposing the disease to be seated in the intervening substance, and not in the secreting membrane of the bronchiæ. If then the fact be established, that opium, in certain affections, promotes expectoration, it will not be difficult to propose a reasonable theory to account for it. This is perhaps obvious, from the consideration that this drug, by allaying irritation, allows the secreted mucus to accumulate in larger quantities, and become of a thicker consistence. In course, a thicker and larger mass must be coughed up, with more facility than smaller and thinner irritating masses.

7. *Inflammation of the Stomach probably mistaken for Dyspepsia.*

A gentleman was affected with sickness; generally vomiting of every kind of nutritive ingesta, and of the usual drinks; failure of appetite for every sort of aliment; much pain of the head; the tongue rather dry, but neither red nor foul, and the pulse was only 58 to 60 in a minute; so weak as to lie in bed for a fortnight or three weeks. The usual tonic and evacuating medicines for the bowels, with leeches to the temples, were employed, but without any benefit, except relief of the head. Having oftentimes found inflammatory appearances, on dissection, not suspected before dissolution, and knowing that a slow pulse attends some cases of visceral inflammation, this case was treated as inflammation of the stomach. The blood was sizy, as in such a disease might be expected. The pulse rose to 72 after the first blood-letting. By this treatment the stomach complaints were immediately relieved or removed.

8. *Comparative Nutritive Substances.*

A table, with a sliding scale, exhibiting the proportionate nutritive powers, and intended to answer an indefinite number of questions, chiefly for agriculturists, similar to Dr Wollaston's table of chemical equivalents, with also a sliding scale, has been issued by Dr Paris. According to the common opinion, *wheat* is placed as a more nutritive substance than the oat, as indeed might be concluded, from its containing a large proportion of vegeto-animal matter, not in the oat. This, however, is contradicted by experience. In Derbyshire, the labourers in the mines declared they could not perform their severe duty at all, or so well, if fed on wheat as on oat bread: and the experiment has shown that a horse, a superior hunter to another horse, became inferior by feeding him with wheat; but, on returning to the oats, he recovered his superiority.

9. *Must of Wheat.*

FORTUNATELY Mr Hatchett has discovered that this defect of wheat may be removed by first scalding the grain in hot water, and then immersing it in cold water. After these ablutions, by kiln-drying.

Extract of a Letter from a Gentleman, on the propriety of attending to the Fancies of Patients affected with Delirium, and sometimes complying with them.

IN attending to the progress of a nervous fever of considerable duration, in the months of July and August 1808, under which my son John laboured, then in his fifteenth year, while receiving a medical education in Edinburgh, where the advice and assistance of respectable medical practioners were obtained, I made some observations, one of which I beg leave to submit to the public, fondly hoping, that, by attention to it, great relief may be administered to the sick, and much peace and satisfaction to their connexions and attendants.

I have often heard, as evidence of the violence of a fever, that three or four persons scarcely sufficed to keep such a patient in bed. What I mean to suggest is, that the person under fever *be not forced* to remain in bed. What is the reason the patient is so anxious to leave his bed, and exerts his utmost strength to accomplish it? It is because he imagines there is some imminent danger awaits him there; and, in that case, who in health would not do the same?

His healthy attendants know there is no such danger as he dreads; but, while they cannot persuade him of this, his mind continues agitated in the extreme; and he believes his relatives and attendants, who obstruct his desire, to be his most cruel enemies, and perhaps they are unintentionally such.

The better to illustrate this, I will shortly state some circumstances which actually occurred.

In the fever referred to, the patient one time imagined he was, with some others, taken prisoner by the Indians; he believed that the others were sacrificed; that he was saved at the intercession of an old man; and, in a more lucid interval, asked a little money to reward him, which he seemed to be much gratified in receiving and giving away.

Again, that there were snakes in the bed; and he kept his eyes as actively employed in searching up and down for them, as any one in his senses would, if snakes had really been attacking him on all sides. His attendants had soothed his mind considerably by giving him a little stick to defend himself, with which he believed he killed many.

After I had arrived and considered the matter, I had him removed to the sofa, where he lay in peace for some days. Again the snakes came across his mind, and he was shifted to the bed, without imagining for a while that snakes were there. In time he called for these changes, and was much gratified by the indulgence.

Once he thought a snake had bit his leg, and called out to be carried to the surgeon. After a while, he said, now they have cut out the bit; and made great complaint of pain in that leg; could not bear it to be touched, or scarce the bed-clothes to lie on it; and, even when recovering, would with difficulty admit of a loose stocking to be drawn on, so deeply was the idea impressed on his imagination.

When so far recovered as to walk a little, (I had for several days to carry him in my arms, which, as he was much reduced, was not difficult; but he had a rapid recovery so soon as he was brought to his native country air), he still retained the ideas distinctly, and related his distresses. I desired him to think no more of it,—it was only a bad dream he had had. He declared that was not the case, and pitied my incredulity;—named such a surgeon who cut out the bit wounded by the snake, and several who had seen the white bone, as evidence of the truth of his assertion.

Now, if shifting a patient from one place to another, though it were to a palliass on the floor, in the garret, or even in the barn, or from one to another,—who would hesitate if that would relieve his mind, while under great alarm and distress? This I should think was gaining a point of great importance; and the objection of danger from catching cold, if the present system of fever management is correct, cannot be great in ordinary weather.

I do not pretend to say that this plan of changing the bed, &c. as a patient or his attendants may suggest, will always succeed. Most likely it may not; but if it has often, or sometimes, a good effect, it is worth attention. Besides, the advantage of a cool bed, and a fresh apartment, if it can be obtained, may much further the effects of affusion of water on the body.

Extract from a Letter to John Hay, *Esq. Surgeon, Hon. E. I. C. Artillery, Madras, with his Reply.*

‘ *Poondamalie, September* 23, 1816.

‘ A case of hydrophobia occurred here the other day, during my absence at Chingleput, in the person of Mrs Macdaniel, late a servant of Mrs Traill, whilst that family resided at the Mount, and which was very successfully treated by Mr Gibson, by the plan of copious depletion, so that there is at this moment every prospect of perfect recovery.

‘ We are, however, at a loss to discover in what manner the disease has been communicated. The woman recollects having been very much alarmed by a dog jumping on her about eight or ten weeks ago, but has not any remembrance of a bite, or any similar cause, by which the virus could have been conveyed.

‘ Will you allow me to inquire of you, if it may be in your recollection that a mad dog was about that time at the Mount, or if Mrs Traill might have made any intimation of such an occurrence having happened in her family?

Jno. Steddy.’

Mount, 25th September 1816.

My dear Sir,—I had last night the favour of your's of Monday, respecting the illness of Mrs Traill's former servant.

I have distinct recollection of mention having been made of a mad dog having been seen here about 10 or 14 weeks since, and I rather think it was told me by one of Mrs Traill's family; but I remember nothing of hearing that any one had been bitten at that time; and had Mrs Captwick * been so, or *known* that she had, it is most unlikely that the circumstance would have remained unnoticed.

It will be curious if real hydrophobia has been produced by a rabid animal having jumped on this woman without wounding her. Or may it not have been an instance of spontaneous hydrophobia?

There are many curious facts connected with this disease but little known. One is, at Trichinopoly, in 1805 or 1806, a serjeant of the 94th regiment was taken ill with every symptom of hydrophobia, and died in the greatest misery, while the dog by which he had been bitten was alive and well then, and for a length of time afterwards, with his master, who was an officer of the same regiment.

I attended the man with Mr Tait, but we did not at that time know the efficacy of bleeding in the disease, or otherwise the poor man might perhaps have been saved also.

I wish you continuance of success in treating Mrs Macdaniel, and shall be much obliged by your letting me know how she goes on.—Your's very truly, J. HAY.

Experiments on Croton Tiglium, or Purging Croton Nut. Extracted from a Letter from WILLIAM INGLEDOW, Esq. Surgeon, H. E. I. C. at Mysore, to Mr RUMSEY, Surgeon, Amersham.

THE Croton or Jemahlgotta, is the most common purgative that is employed by the native physicians in the Deckan; but, owing to the inaccuracy of their weights, they are liable to administer it in very unequal quantities; and, from over doses being frequently given to their patients, the severe drastic effects of the croton have been experienced to a degree that have endangered life, which circumstances chiefly have brought the medicine into disrepute, and have occasioned it to be considered of a highly dangerous nature.

In the native books of physic, the croton is ordered to be prepared by boiling in cow dung and water, after the central film, which unites the halves of the nut, has been removed.

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* Mrs Macdaniel was, when here, the Widow Captwick, and has since married again.

The thin film enclosed within this seed is said to be of a very poisonous nature; the operation of boiling renders the medicine milder in its effects, by extracting part of the oil which it contains; and, to prevent vomiting, griping, and excessive purging, pepper, ginger, and borax, are usually combined with it.

Seeing a satisfactory account of croton as a purgative in Dr Ainslie's Materia Medica, and having a good opportunity of employing that medicine in the Charity Fever Hospital of this place, I began to use it early in the year 1815. I preferred to commence with the native mode of preparing it to any other, until I might obtain some correct knowledge of its effects from personal experience; and it was accordingly administered, as above prepared, to twenty-six persons, giving to each adult, male or female, one grain made into two pills, with a few grains of powdered ginger. Upon nine of these the purging commenced one hour after the pills were taken. Upon six others, two hours afterwards; upon six, three do. do.; upon two, four do. do.; upon two, six do. do.; and upon one it had no effect whatever. One person was purged twice; nine do. do. thrice; nine do. do. four times; four do. do., five do.; two do. do., six do. One of these individuals was griped severely; and ten others had a little griping.

Having derived a little confidence from the above trials, I prescribed the croton to nearly the same number of sick, after preparing it by extracting the film and boiling the nut in plain water merely; and its effects were similar to those of the former preparation.

I now determined to make trial of the croton after having been exposed to the sun only; the film was removed, and the seed bruised and exposed for three days, by which means much of an oily substance was extracted.

This medicine was given to two hundred and forty-one persons, in doses of one grain to each adult, joined with a few grains of camphor, and made into two pills. Upon seven individuals it had no purgative, nor any sensible effect. Upon fifty-three others, purging commenced one hour after the pills were taken. Upon ninety-five, two hours afterwards. Upon thirty-six, three do. do. Upon thirty-five, four do. do. Upon six, five do. do. Upon six, six do. do. Upon two, seven do. do. Upon one, eight do. do. Nine of these were purged once; thirty-two, twice; thirty-seven, thrice; fifty-seven, four times; forty, five do.; twenty-two, six do.; six, seven do.; eleven, eight do.; five, nine do.; eight, ten do. Five others were purged eleven, twelve, thirteen, fourteen, and twenty times, and two had each fifteen purgative evacuations.

Of the above individuals, sixty-five were vomited from one to four times; one of them had six, and another eight vomitings, from the pills.

Thirty-seven were griped in a trifling degree; forty others experienced more griping pain, and some of these latter were severely griped. A few had both vomiting and gripings, of these two last descriptions of sufferers.

In the above list ten were boys and girls, seven and eight years old; they took the croton in smaller doses, proportioned to their ages.

Being satisfied that the croton was an excellent purgative, and could be used with perfect safety, I wished to ascertain the powers of the expressed oil. I procured a small quantity that had been some time prepared; but as it was old, its operation was very uncertain, and it frequently had no sensible effect whatever.

After obtaining a supply of newly expressed oil, I prescribed it to thirty-four adults, in doses of five drops to each; and understanding that the oil of croton was more violent in its operation than the prepared nut, I declined administering it to any but full grown persons. Ten of these patients were purged in one hour after taking the oil; eleven others in two hours afterwards; seven in three do. do.; six in four do. do.; two were purged twice; four do. three times; seven do., four do.; three do., five do.; seven do., six do.; one do., seven do.; four do., eight do. Three were purged nine, ten, and eleven times; one eighteen, and two twenty times.

Of those who took the oil of croton, thirteen had from one to four vomitings; six experienced a little, and twelve much griping. A few of this number had both vomiting and griping.

The oil was laid aside, as its effects were complained of; and the vomiting and griping it occasioned were both more frequent and more severe than when the pills were used.

The trials of the croton, from which these remarks have been taken, were made prior to the month of February last; since which period, the same preparation of that purgative has been administered to two hundred and twenty-seven persons more; but as the effects were very similar to those above detailed, they were not particularly noticed in the relations of the cases.

In June, July, and August last, I have prescribed the croton to one hundred and sixty-four other patients, but instead of having it contused, the seeds, having the films taken out, were exposed entire to the sun until they became hard, and so dry as to admit of being divided into minute particles by trituration. This process requires a little attention to secure the proper quantity in every dose; and the oil which the croton contains prevents its being reduced to an impalpable powder.

The croton for this preparation was exposed during three days; the doses were the same in quantity as were previously used, and the effects similar, except that the number of purgative evacuations was frequently greater, owing to a larger proportion of oil being retained in the nut by exposing it whole to the sun.

Having prescribed the croton to upwards of seven hundred persons, I can pronounce it to be a valuable and safe purgative. I have not ventured to give it either to children under seven years of age, or to any individual much advanced in life. The above trials have been made almost entirely upon sick poor from this town and neighbouring villages, and sepoys and others in the service of the Rajah, who sought relief at the Fever Hospital. Some of the former were ill provided with the common necessaries of life; and upon such subjects the effects of the croton might be expected to be more severe than with the other natives liberally supplied with good food, or upon Europeans, who possess naturally much stronger constitutions. A few of these patients were Company's sepoys.

Croton purges should be employed with caution to persons debilitated by mercury, or infirm from long-continued sickness, as their operation is sometimes extremely severe upon such patients, and occasions them considerable distress.

Whenever this medicine purges too violently, the native practitioners employ ghee, or butter, internally, along with congee, or rice water, or, instead of these, cold butter milk, to check its operation; and sometimes they use affusions of cold water upon the body for this purpose. I have tried the former in a few instances, and was told with good effects.

Mysore, September 10, 1816.

STATEMENT of the Sizes of Men in different Counties of Scotland, taken from the Local Militia.

1st Argyll Regiment of Local Militia, of 686 Men.

Heights.				Number of Men.	Thickness round the Chest, in Inches.															
					33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Ft.	In.	Ft.	In.																	
5	4 &	5	5	79			1	3	13	20	20	11	8	1	2					
5	6	5	7	221		1	0	11	16	45	49	46	36	14	3					
5	8	5	9	245				2	6	17	42	57	55	36	20	10				
5	10	5	11	107						5	14	19	23	23	14	7	2			
6	0	6	1	34							1	3	8	5	7	8	1	0	1	

2d Argyll Regiment of Local Militia, of 736 Men.

					33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
5	4 &	5	5	77			1	3	12	21	17	13	8	2						
5	6	5	7	288			2	7	37	48	67	59	46	19	3					
5	8	5	9	234				1	10	21	30	47	58	48	12	6	1			
5	10	5	11	109						1	6	19	26	27	16	7	6	1		
6	0	6	1	28									6	10	3	6	3			

Lanark Highland Local Militia, of 633 Men.

					33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
5	4 &	5	5	122		1	5	15	22	27	19	18	11	2	2					
5	6	5	7	218		1	7	17	29	36	50	33	23	15	3	2	1	1		
5	8	5	9	199	1	1	11	13	39	32	35	29	29	5	2	1	1			
5	10	5	11	81			2	2	14	15	18	11	11	4	4					
6	0	6	1	13				1	3	1	1	3	2	0	1	1				

Annan and Eskdale Regiment of Local Militia, of 493 Men.

Heights.				Number of Men.	Thickness round the Chest, in Inches.															
					33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Ft.	In.	Ft.	In.																	
5	4 &	5	5	58			2	0	4	14	9	14	10	3	1	1				
5	6	5	7	193			2	3	8	30	35	37	33	26	14	4	1			
5	8	5	9	141				1	1	12	23	30	28	28	13	3	1		1	
5	10	5	11	78						2	11	7	20	17	13	7	1			
6	0	6	1	23							1	2	9	5	3	3				

2d Fifeshire Regiment of Local Militia, of 621 Men.

					33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
5	4 &	5	5	121	1	1	6	17	17	25	20	22	9	2	0	1				
5	6	5	7	218		1	3	5	15	36	61	40	29	23	3	2				
5	8	5	9	213				2	3	17	40	34	35	40	27	12	3			
5	10	5	11	36				1	1	4	7	6	5	6	2	3	0	2		
6	0	6	1	33						3	2	8	5	8	3	3	1			

2d Edinburgh Regiment of Local Militia, of 506 Men.

					33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
5	4 &	5	5	37				1	5	12	11	6	2							
5	6	5	7	173	1	4	12	18	32	46	32	22	5	1						
5	8	5	9	192		1	4	9	15	45	41	36	22	11	3	3	2			
5	10	5	11	76		1	2	3	5	10	15	16	9	5	6	2	1	1		
6	0	6	1	28					4	1	7	7	4	1	1	2	1			

Peebles-shire Regiment of Local Militia, of 224 Men.

					33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
5	4 &	5	5	10			2	1	1	2	1	3								
5	6	5	7	69		2	2	9	5	14	21	10	2	4						
5	8	5	9	90				3	5	8	21	17	14	14	3	3	2			
5	10	5	11	35					2	4	7	9	7	2	3	0	1			
6	0	6	1	20					2	1	1	3	4	5	2	1	0	1		

6th Lanarkshire Regiment of Local Militia, of 379 Men.

Heights.				Number of Men.	Thickness round the Chest, in Inches.															
					33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Ft.	In.	Ft.	In.																	
5	4 &	5	5	59		4	8	8	13	9	9	6	2							
5	6	5	7	20					3	3	2	3	3	5	1					
5	8	5	9	179			1	1	7	18	39	52	24	20	11	4	1	0	1	
5	10	5	11	83					2	6	10	22	28	9	6					
6	0	6	1	38							4	5	7	8	8	3	1	2		

Kinross-shire Regiment of Local Militia, of 210 Men.

					33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
5	4 &	5	5	57			4	11	5	9	11	12	5							
5	6	5	7	65			1	3	7	13	20	10	8	3						
5	8	5	9	47				1	3	9	12	10	9	2	1					
5	10	5	11	37					3	7	7	8	5	3	4					
6	0	6	1	4										2	1	0	1			

East Stirlingshire Regiment of Local Militia, of 647 Men.

					33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
5	4 &	5	5	67		1	1	9	16	14	15	6	4	1						
5	6	5	7	208			1	5	16	52	65	38	22	7	2					
5	8	5	9	207					1	4	31	57	42	47	14	10	1			
5	10	5	11	125				1	4	4	12	24	43	24	7	4	1	1		
6	0	6	1	40						1	1	1	9	7	6	9	2	4		

Kirkcudbright Regiment of Local Militia, of 596 Men.

					33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
5	4 &	5	5	34			1	1	0	1	10	7	7	6	1	1				
5	6	5	7	142					2	20	40	39	24	7	5	4	1			
5	8	5	9	234				1	1	4	27	67	51	41	20	18	1	3		
5	10	5	11	129						4	10	12	32	28	27	10	4	2		
6	0	6	1	56							2	6	8	14	10	7	8	0	0	1

Comparative Statement of the Height and Thickness of Men round the Chest, in different counties.

Regiments.	Average Inches round the Chest.	Average Inches in Height.
Highland Lanark,	38.71	67.39
2d Edinburgh,	38.79	68.04
Kinross,	39.07	67.20
Peebles,	39.55	68.38
2d Fife,	39.82	67.29
6th Lanark,	39.91	68.60
2d Argyll,	40.07	67.74
1st Argyll,	40.09	67.76
East Stirling,	40.09	68.06
Annan and Eskdale,	40.64	68.15
Kirkcudbright,	41.01	68.59

Average Heights of Men.

Heights.					Number of the different Sizes in 100.
Ft.	Inch.		Ft.	Inch.	
5	4	&	5	5	15.2
5	6		5	7	37.2
5	8		5	9	31.2
5	10		5	11	13.5
6	0		6	1	2.0

Comparative Sizes of Men's Heads, as ascertained by actual Measurement, upon an extensive scale, in retail Hat-shops in London and Edinburgh.

Inches circumference.	Edinburgh. Number in 100.	London. Number in 100.
19.5	0.000	.450
19.875	0.285	.164
20.25	2.285	4.942
20.625	6.285	11.696
21.	16.428	25.864
21.375	27.428	28.830
21.75	21.571	13.344
21.125	13.000	10.049
22.5	8.428	3.789
22.875	3.142	0.328
23.25	0.857	0.328
23.625	0.285	0.164
24.	0.000	0.000

For these very curious tables, we are indebted to an army contractor, a gentleman of great observation and singular accuracy. They furnish documents of much interest as to the comparative height and breadth of men in different counties in Scotland, from which inferences may be drawn as to the influence of the nature of the county and climate, food, and occupation, upon the growth of man. Before, however, any general conclusions can be safely adopted, more facts of the same kind must be accumulated.

A second edition of Mr Parkinson's HOSPITAL PUPIL is announced. It contains addresses to the patients of those intended for the medical and chirurgical profession, as well as to the pupils themselves, on the necessary previous education, and pecuniary resources: An improved course of professional education, with suggestions as to the order of their studies, &c.; with hints on entering into practice, and on medical jurisprudence.

The TRANSACTIONS of the MEDICAL SOCIETY of LONDON. Vol. I. Part II. is in the Press. Containing Cases communicated by Drs Adams, Blegborough, Lettsom, Clutterbuck, Woodforde, Roxburgh, Walshman, Sims, Squire, Moody, Green, Damant, Dale, Jackson, Andree.

⁂ Communications have been received from Drs M. HALL, HOWISON, Mr DOUGLAS, HAY, BIRNIE, and SCOTT; and we have to return thanks for the following publications.

A Practical and Historical Treatise on Consumptive Diseases, deduced from original observations, and collected from Authors of all ages. By THOMAS YOUNG, M. D. F. R. & L. S. Fellow of the Royal College of Physicians, and Physician to St George's Hospital. London, 1815.

Practical Observations in Surgery and Morbid Anatomy. Illustrated by Cases. With Dissections and Engravings. By JOHN HOWSHIP, Member of the Royal College of Surgeons in London, and of the Medico-Chirurgical Society. London, 1816.

Review of the Alnwick Dispensary, with a proposal for extending its benefits, respectfully submitted to the Patron, Presidents, Vice-Presidents, and Governors. By CHARLES WIGHTMAN, M. D. Physician to the Institution, Member of the Royal College of Physicians, London, and Extraordinary Member of the Royal Medical Society of Edinburgh. Alnwick, 1817.

Report of the Managing Committee of the House of Recovery and Fever Hospital, in Cork Street, Dublin, for one year, ending 4th January 1816. Dublin, 1816.

Gerbaux on the Teeth, with Observations on the most frequent Diseases incidental to the Mouth, &c. &c. &c. A Popular Treatise, addressed to the Faculty and Heads of Families. Translated from the French by a Member of Faculty. Edinburgh, 1817.

⁂ Communications may be addressed to the Editors, to the care of Messrs CONSTABLE & Co. Edinburgh; Messrs LONGMAN, HURST, REES, ORME, & BROWN, London; and JOHN CUMMING, Dublin. And we have to request our Continental friends to send any thing larger than a *single* letter to the care of Messrs PERTHES and BESSER, Booksellers, Hamburgh, as the expense of sending journals and packets by the post to this country is enormous.

No. LI. will be Published on the 1*st of July* 1817.

THE

EDINBURGH

EDICAL AND SURGICAL JOURNAL.

1. JULY 1817.

PART I.

ORIGINAL COMMUNICATIONS.

I.

n *the Statistical Pathology of Bristol and of Clifton, Gloucestershire*. By C. CHISHOLM, M. D. F. R. S. &c. &c. &c. and Senior Physician to Clifton Dispensary.

Hoc autem modo nec exigua nec infrugifera arti medicæ accessio facta est—nam artem experientia facit, exemplo monstrante viam.
Remb. Dodonæi Prax. Medica.

I WAS induced to contemplate the subject of the following paper, as it relates to facts abstracted from speculation, by the result of four years' observation of the diseases of Clifton, as they passed in review before me at the Clifton Dispensary. The facts which further investigation of the subject brought into view, appeared to me highly important, and almost, if not wholly, conclusive, as to the question, whether the infection of yphus is specific or not? In the adduction of facts, I have arefully avoided those of a doubtful nature; and have given reference to those, of which I acquired a knowledge, from the formation of gentlemen connected with, or in the immediate edical management of, Large Hospital, Dispensary, or Public chool establishments, within the limits of the city of Bristol.

There is, perhaps, no mode of acquiring a knowledge of hat may be called Statistical Pathology, so perfect, as a Paochial or District Dispensary. The objects of such an institution are confined to that description of people who are most exposed to the action of local causes of disease; whilst their mode of life removes them from those of an artificial nature. Luxury, with all its attendant evils, has no place in their domestic establishments:—Superfluity of every kind they are unacquainted with,—unless it may, unhappily, be that of distress and poverty:—Whatever morbid causes proceed from the nature of situation and soil,—from the changes of the atmosphere,—from imperfect ventilation,—from the accumulation of filth,—from crowded small rooms,—and from poor and scanty diet,—these people are the subjects of:—And, hence, a correct and well digested register of their diseases becomes a faithful record of the pathology of such parish or district.

Fully persuaded of the truth of this observation, and knowing that the poor of the parish of Clifton had no means, (a scanty parochial annual stipend paid in rotation to the apothecaries of the parish, excepted), but the humanity of individuals, to resort to, for relief, when under the affliction of disease;—I suggested to a few respectable and benevolent inhabitants, the benefits which would arise from a Dispensary in the parish. An institution of this kind was immediately resolved on; and, by their exertions and contributions, established towards the end of 1812, and opened on the 1st of January following. In order to have a more distinct view of the result, during the four years which have elapsed since the opening the institution, some introductory remarks may be useful on those local circumstances alluded to. With respect to the localities of Bristol, I shall have ample occasion to bring some of the most remarkable into view in the course of the examination of its pathology.

The parish of Clifton lies in the S. W. of Gloucestershire, forming its extreme angle by the Avon on one side, and the streamlet of Trim on the other, and having a circumference of four miles. In the time of Sir Robert Atkyns, about the beginning of the last century, the number of houses in the parish was only 90, and of the inhabitants 450; and of these only 10 were freeholders. (See account of the ancient and present state of Gloucestershire, 1712, fol. edit. p. 187.) In the year 1770, Mr Rudder informs us, that the number of inhabitants was 1367. (Hist. of Glouc. p. 383.) In the year 1811, it appears from the return then made, that the population of Clifton parish had increased to 6891. There is reason for believing, however, that this return was considerably less than the actual number; for, in 1813, when the Dispensary was established, there are good grounds for being assured that the population had risen to 9000. At the celebration of the jubilee, nearly three years before, more than 3000 applied for and received relief, from a liberal subscription then

red into. The proportion of mortality in this population
not be accurately stated, it appearing that the register kept
he minister of the parish is necessarily defective, many be-
buried out of the parish, of whom he has no knowledge.
reat Britain presents almost the extreme of irregularity in
climate; and probably the western counties are the most
inguished for that versatility, that capriciousness of tem-
ture so peculiar to the whole of England; and which, al-
t without a hyperbole,

——— gives the lie to all astrology.
————— Cameleon-like
Our sky puts on all colours, blushing now,
Now lowering, like a froward pettish child;
This hour a zephyr, and the next a storm,
Angry and placid by fits.——— (*Observer*, *No.* 95.)

year, however, exhibits a gradation of season;—but the
lation is singularly abrupt, or capriciously interrupted.
hangeable, indeed, is our climate, in this otherwise most
ured spot, that often every hour of the day is marked by a
len rise or fall of the thermometer. To complete the cha-
er of our weather,—there is an uniformity to be observed in
approach of the different seasons; but it is an uniformity
regularity;—it is such an uniformity as is to be observed in a
icircle of quickly succeeding curvatures, ascending from Ja-
ry to June, and descending from June to January, rising
sinking by plunges. Thus, in order to arrive at summer
, you must climb with difficulty, and often experience a
len fall to winter cold; and in descending to January or
ruary, when severe cold should mark the depth of winter,
have, at a moment when least expected, a considerable
nt to surmount of summer temperature. In February and
ch, thrushes, blackbirds, and even the nightingale, often
; rose-bushes, lilacs, elder, hepaticas, and other early plants,
almost fully evolved. In short, such is the precocity of
ng, that in these months of some years, the description of
retius is almost literally applicable,

——— *tempora se veris florentia pandunt;* l. 5. 353.
Spring expands her flowery carpet;

yet the following April assumes the features and garb of Ja-
y. In the months of June, July, and August, fires are
n necessary. There is one feature of our Bristol climate
h seems to be peculiar to it. During fourteen years I have
rved snow to fall, in more or less quantity, some days be-
n the 15th and 25th of April of every year. The thermo-
r, exposed to the direct rays of the sun at noon, often rises
0°, and yet in the same month, as I have already remark-

ed, often indeed, on the succeeding day, snow falls with corresponding cold. In June of the same year, the thermometer has not been higher in the sun than 84°, and such frost takes place as to cut off the early vegetables. I have never seen the thermometer higher in the sun than 120. The range of the thermometer in the shade, during fourteen years, has been 80°:—thus the greatest cold occurred in the night of the 12th January 1814, viz. 12°, and the greatest heat at 1 P. M. of 12th July 1809, viz. 92°. The greatest degree of cold in the 24 hours is always about day-break. The cold of winter generally makes a regular progress from N. to S.; and I recollect only one remarkable deviation from this, in the year 1814, when the heaviest and longest continued storm of snow, ever remembered in the west of England, fell. On the 21st of January of that year, so much were the communications with the rest of England, particularly Exeter and the west, cut off, that thirteen mails with 80 bags were due at the post-office.

A tolerably correct idea of the nature of our weather in Bristol, Clifton, and their immediate vicinity, may be formed by the consideration of the following tabular statement of the cloudy, clear, rainy, and snowy days, which occurred during a residence of fourteen years in those places; together with the average of the thermometer at 1 P. M. of each month, and the number of days in which the wind was easterly or westerly, that is, in which it blew at any point from N. to S. round by E., and at any point from N. to S. round by W.

General State of the Weather at Bristol and Clifton, and immediate Vicinity, of each month of the Year, from 1st January 1804, to 31st December 1816.

Months.	Cloudy Days.	Clear Days.	Rainy Days.	Snowy Days.	Wind Easterly.	Wind Westerly.	Thermometer at 1 P. M.		
							L.	H.	M.
Jan.	219	217	160	59	224	212	21	58	39
Feb.	192	200	150	42	162	232	27	54	40
March	175	249	120	55	214	220	30	69	49
April	174	246	124	52	183	237	32	77	55
May	157	277	149	8	184	250	38	78	58
June	163	257	161	2	123	297	50	80	65
July	175	259	175		127	307	51	92	72
Aug.	145	289	145		131	303	54	81	68
Sept.	158	262	158		182	238	44	84	64
Oct.	226	208	226		189	241	40	66	53
Nov.	210	210	168	12	181	239	36	56	46
Dec.	247	187	180	67	146	288	28	58	43
	2241	2861	1916	297	2046	3064			

The whole parish of Clifton is a beautiful and romantic assemblage of woods, rock, water, pasture and down. It seems, indeed, singularly well adapted to the maintenance of health; the soil resting on immense beds of limestone rock, exposed to the southerly and westerly winds for nearly three-fourths of the year; with an atmosphere elastic, vivifying, not humid. Notwithstanding, about five-eighths of the year are rainy, in a greater or less degree; and, on the downs, free from all contamination; being only six miles from the Severn estuary, from whence it is by the prevailing winds perflated by breezes from the sea during the largest portion of the year; and having a river running along its whole extent, subject to the action of the tides, which rise sometimes thirty feet. In a mineralogical and geological view, certainly few places exhibit a more curious and instructive field;—few more illustrative of the truth of the Mosaic cosmogony. The rock formations are thus exhibited by a very able geological friend, my present colleague in the Clifton Dispensary, Dr W. H. Gilby. "There is no rock which more frequently gives rise to bold and pictureque scenery, than the grey compact mountain limestone. The immense caverns which many parts of England are remarkable for, and the abrupt and continuous chasms as seen at Cheddar, Clifton, and Chepstow, have been, at some distant epoch, the result of catastrophes in this rock. The flat table-land, or downs, which it generally forms, have always been resorted to as a delightful and healthy situation. Nowhere is the limestone viewed to greater advantage than at Clifton, Durdham, Leigh, and Ashton downs, which it exclusively forms. The nature and appearance of its strata, are admirably displayed by the section which some grand convulsion of nature has made of this rock below Bristol. The rock forming the commencement of this most curious section, or rather disruption, at Rownham ferry, is a very highly indurated sand-stone, of a greyish, and oftentimes of a reddish, colour, and small splintery fracture. It seems entirely composed of a congeries of silicious particles; and, according to the Wernerian nomenclature, would better deserve the name of a quartzy sand-stone. It is extensively distributed about Clifton, forming much of the high ground; and most of the walls about the place are constructed of this material. It everywhere reposes upon, and dips in, a direction conformable with the limestone. Thus, these two rocks form conjointly the whole of the hilly ground upon which Clifton stands. The prevailing soil about Clifton itself is a clay, very deeply impregnated with oxide of iron. It is sometimes quite a compact clay stone, and so full of iron, that its specific gravity is equal to many of the workable iron ores. In some places, as on the Downs, this sort of red ground is wanting, and there only occurs a thin light earth, resulting from the disintegration of the limestone from exposure to air and moisture. At Clifton, there are two very different kinds of water; one which issues from the limestone, of a hard quality; the other through the sand-stone, of a much softer nature. It is well known, that the water of Sion Hill pump-room, which is distributed through great part of Clifton for domestic purposes, deposits a great quantity of carbonate of lime, when the superabundant carbonic acid, which kept it in solution, is driven off by boiling. I boiled eight ounces of this water for half an hour, and, at the end of that time, I found it quite milky, and, upon filtering, I collected half a grain of calcareous earth. I boiled the same quantity of the water of Jacob's well, which flows out of the sand-stone, for half an hour, and found that the transparency of the water was scarcely at all impaired; neither was I able to collect any appreciable quantity of carbonate of lime." (MSS.)

An ingenious and elegant scholar, long and well acquainted with the peculiar circumstances of the situation of Clifton, concludes his interesting remarks on it thus. "The fact then is, we here breathe a light sea air, tempered with a soft dry mountain air. What can we conceive more mildly tonic, and more salubrious? To no one spot in our kingdom can the valetudinarian fly, or can the physician consign his patient for the re-establishment of health impaired by disease, where the purpose is more attainable than in the neighbourhood of St Vincent's Rock." (*Nolt on the Hotwells*, &c. p. 24 and 92.) Had Dr Nolt adverted to the influence of subincumbent limestone, in constituting the salubrity of an atmosphere, his picture would have been more complete. The absence of every thing like marsh, most certainly contributes greatly to the purity and wholesomeness of the Clifton air; for it will be seen, in the table of diseases admitted during four years into the Dispensary, that only one case of intermittent fever appeared, and that one was from the fenny district, near Conglesbury, about twelve miles to the westward of Clifton.

Such local advantages, probably, would be effectual in excluding a morbid constitution, had the inhabitants themselves contributed their own exertions. But here are the unpleasant features of the picture. Nearly three-fourths of the population of the parish are confined to that part of it called the Hotwell Road, extending about a mile in length along the north-western bank of the Avon, from the immediate vicinity of Bristol to the Hotwells, and narrowed on one side by the river; and, on the other, by Clifton hill, high and acclivous, into a breadth of not more than from 30 to 50 yards. All the houses are adapted to the circumstances of the lower classes; or, very frequently, for the purpose of employing the surface in the most lucrative way, formed into narrow courts or blind alleys, in which there are no means of thorough ventilation, and in which, for the most part, the air is in a very unagitated state. The houses are occupied, in most instances, each by two or three numerous families; so that one room frequently serves the purposes of parlour, bed-room, kitchen, scullery, and wash-house, to six or ten individuals. An impure air, and accumulated filth, are the necessary consequences; and the fetid smell, which assaults the stranger on entering any of these rooms, sufficiently indicates their offensiveness. The diet, indeed, of these people may, in some measure, counteract the influence of the impurity of the air they inhale, chiefly consisting of vegetable food and water. Animal food does not enter very often into its composition; and, when it does, it is chiefly bacon. The persons of the inhabitants, thus limited in their circumstances, are, except on Sundays and holidays, at all times, squalid, filthy from the neglect of ablution, and sordid from the miserable garments they are covered with. This may be said to be their general state;—Sunday always, and I believe universally, constitutes an exception;—and their observance of that day, in a religious and moral view, is certainly very exemplary;—a constitution of mind, I feel happy in believing, attributable to the anxious solicitude of the worthy men who have been the ministers of the parish for some years. I have visited the dwellings of the poor at all times of the day;—and in the most wretched, on Sundays, and not unfrequently on week days, I have been delighted to perceive the pleasure they have exhibited in reading their bibles, and other religious books. A great portion of the indigent male inhabitants, are decayed or unemployed servants, sailors, tradesmen, or labourers; of the female, almost universally, decayed servants, or whose occupation is washing and ironing,—a frequent remote cause among them of phthisis pulmonalis.

In such a state of things, were we to form our opinion by the usual speculations founded on imperfect ventilation, on the accumulation of filth, on crowded habitations and rooms, and the squalor of the persons inhabiting places subject to such supposed causes of disease, we should infer that the Hotwell Road, or town, was the very abode, the very centre of infection. It will appear, however, from the appended table of diseases, that, although much disease has existed, the supposed offspring of the circumstances I have stated, typhus, or a fever of infection, has scarce a place. How can this be reconciled with what we hear and read of the ravages of such diseases in many of the larger cities and towns of the United Kingdom? It must be confessed, indeed, that the fluctuation and instability of opinion, respecting infection, have been as great as they are unaccountable. We may, however, trace their origin to prescriptive ideas. Filth and infection seem closely allied,—seem to bear the same affinity to each other, as cause and effect; and hence it results that a belief prevails, that the accumulation of filth, &c. must necessarily be the cause of typhus,—a belief handed down, not inquired into, and consequently converted into an established fact,—an axiom in physics. Little research is instituted, and mankind continue to think and act on a faith not sanctioned by true philosophical principles.

On a former occasion (see Edinburgh Medical and Surgical Journal, Vol. VI. p. 389), I endeavoured, by the adduction of facts, to show cause for believing, that the emanations from the putrefaction of animal matter are not a cause of infectious diseases;—it is my purpose to take the present occasion, to offer to the consideration of the reader some facts, the tendency of which seems to be, to show equal cause for believing, that, wherever typhus, or a fever of infection, that is, a fever capable of communicating itself from the person suffering under it, to a healthy one, appears, it must be the result of a specific virus, and not the product of the fortuitous concurrence of those circumstances to which it has been generally attributed. In such an inquiry, a curious fact presents itself,—that fevers of infection are observed to be more prevalent in manufacturing than commercial towns. This, I believe, is a general remark, to which there are doubtless exceptions. If it is founded on correct observation, and there seems no reason to doubt its being so, how is it to be accounted for? A very ingenious and acute observer of mankind, once remarked, in conversation, that there is a very obvious and important difference in the dispositions of the inhabitants of manufacturing and commercial towns. In the former, there is always a necessity for great exertion of intellect, and more especially of the inventive faculty; in the latter, the exertion is chiefly of the physical powers. The line of conduct of the inhabitants of commercial towns, is always the same;—hence, he continued to observe, the mind is less engaged in that species of pursuit, which requires much ingenuity and invention; but there is, at the same time, more collision, more mixture of diversified society, and more occasion for suavity of manner. It follows, he added, that, in manufacturing towns, literature is more cultivated than in commercial, among the higher classes, and sedentary occupation among the lower and labouring; but that in commercial towns an opposite state of things may be observed. Now, if the observation may be extended to the pathology of these differing societies of men, perhaps a step towards a solution of the proposition may be obtained: for it is not unreasonable, that the unnatural state in which the inhabitants of manufacturing towns are placed, may dispose to the generation in their systems, of that unknown virus, or poison, called typhous infection; whilst the active bustling, and more natural condition of the inhabitants of commercial towns, preserves a due balance in their systems, by throwing off those secretions useless in the organization of the human body, and injurious to its health when retained. Is, then, typhous infection, or rather the virus or poison so called, generated in, and dependent on the state of the human body itself, and not the result of the application to, or inhalation of any thing extraneous? Every observation made with due precision and sagacity, seems to prove that it is. Reason and religion unite in confirming it. What is pernicious to the system and economy of the body, in its natural state, is separated from what is beneficial or necessary to it, and is thrown off. If, however, from pursuits or occupations, for which the human body was not intended, but into which the artificial wants, the caprice, or the avarice of mankind, have involved it, the functions cannot be properly exerted, and, consequently, what is pernicious to it, cannot be thrown off, but is retained, then that pernicious substance is converted into a poison destructive of health; and may be considered as retributive of the perversion of the functions and powers, implanted in the body for its support and maintenance:—it may be considered, in truth, as a further, and still more instructive illustration of that great and universal law by which all nature is supported and secured from failure, the law of compensation. (See Edinburgh Medical and Surgical Journal, Vol. VI. p. 419.) But it may be said, that such a view of the generation of the virus of typhous infection, is inconsistent with the proposition meant to be proved. No such inconsistency exists, as the proposition applies to the habitations of the indigent in common life;—poverty renders activity with them necessary, and therefore, the obtainment of the means of subsistence, cannot co-exist with much and continued confinement to their filthy and fetid dwellings. Indigence and sloth are often found in the same persons; and when they are, then the retribution necessarily attached to such an unhappy union, may be perceived, and may be felt. Such an union I conceive to be the parent of the virus of typhous infection. Such an union, therefore, it is the business, and ought to be the duty of the enlightened and humane, and more especially if placed in authority, to prevent by all possible means; for although it may not always be destructive to the individuals themselves, in whom it originates, it must, and is always so to all who come within the radius of the infection which emanates from it. Hence the encouragement of active out-of-door industry, among the indigent, must be obvious, and should be obligatory on society. It diffuses health, by the dissipation of the causes of disease;—it raises the mind above the inertness of sensibility;—it kindles the sparks of virtue, implanted by nature, I trust universally, in the human heart, into a flame;—it makes those, otherwise more than burthensome, most useful members of society;—it nerves the body, it strengthens, often illumines the mind. The economy of this most important principle, politically and morally considered, is at present, when the evils of poverty and scarcity press so severely on the lower orders of society, more especially throughout the United Kingdom, well understood and judiciously applied. Perhaps a more apposite illustration of its utility, taken in its most extensive sense, cannot be found, than what the result of the late inquiry into the state of the unemployed poor, in the city of Bristol, instituted with the most benevolent intention by Mr Haythorne the mayor, and the corporation, and dated January 1817, presents to us. By the return made, it appears, that out of eighteen parishes, and a population certainly much exceeding 80,000, although returned in 1811 only 76,753, only 3045 were returned, of poor out of work, or not fully employed. Notwithstanding this, there are few places more filthy, and less perfectly ventilated, than a very considerable part, and that too the most populous, of the city of Bristol. In the address of Mr Haythorne on this distressing occasion, to his fellow-citizens, it is impossible to form a more correct conception of the principle I have endeavoured to advocate; nor can the mode of its application be more energetically, and at the same time concisely expressed. 'Its unequivocal object,' says he, 'is to preserve the physical and moral powers of many valuable members of society to the community, as well as to prevent an increase of the degradation of that honest sentiment which is the birth-right of every Briton, however low he may rank in society.' Medically considered, the principle is certainly not a new one, although there is reason to believe, previous to the philanthropic researches of the benevolent Mr Howard, in no instance contemplated, perhaps in no instance well understood. Even since the promulgation of that gentleman's discoveries, the generation of the virus of infection has not been much investigated in the way which seems the most rational, the consideration and application of facts; although (which seems almost paradoxical) the means of prevention have been accurately conceived, digested, and employed. It has been, indeed, a sort of empiricism in chemistry. In my Essay on the Malignant Pestilential, improperly called 'Yellow' Fever, I have adverted to this mode of generation of the virus of infection, vol. I. p. 281. 'Thus, then, the first set of the first class of causes, is the effluvia emanating directly from human bodies infected with contagious or pestilential diseases, or from substances to which the basis of these effluvia has attached itself; *the second proceeds from human effluvia arising from healthy persons, but, from the peculiarity of the circumstances in which they are placed, in a state of morbid concentration, and capable of generating a principle similar to that produced by infectious and pestilential effluvia.*' Since then, I have frequently contemplated the subject by the occurrence of circumstances attached to it, in various situations, in a long course of medical experience; but more immediately by the consideration of some interesting facts, observed in Bristol and Clifton, which go far, if not the whole length, to prove that the infection of typhus is a specific virus, that is, always of the same nature, however modified by adventitious circumstances, and always regulated by the same laws, wherever it may appear;—that it diffuses itself to a certain distance in every direction, forming an atmosphere around itself, imbued with all its qualities, and capable of communicating those qualities to bodies animate and inanimate, placed within its diameter;—that these bodies so imbued, retain it, and become the means of disseminating it in distant, and totally unconnected places;—that no distance secures from its influence when thus conveyed;—that no temperature, except a very high or a very low one, is capable of decomposing it;—and that no means are known of destroying it, except the introduction of certain gases, which, subjecting it to a chemical decomposition, give rise to new combinations, inert or harmless in their nature. One of the most remarkable instances of this virus, under all these conditions I am acquainted with, is the Malignant Pestilential fever, above referred to, introduced into the island of Grenada, in the month of February of the year 1793, concerning which, so much useless, so much pernicious discussion has taken place. (See Essay, vol. I. and II.; Letter to Dr Haygarth, and Edin. Med. and Surg. Journ. vol. IX. p. 417.) In the work last referred to, I have expressed my sentiments in the following explicit manner, with which I shall conclude what I have proposed to say on the subject, introductory to a statement of facts. 'A close and discriminative attention to facts and circumstances, render it evident that typhus does exist within the tropics, varying only from the same disease in other climates, in as much as a high temperature in the former, generates a peculiar modification of its specific nature, and in many respects of its symptoms:—and that the Malignant Pestilential, or what has been most improperly called 'Yellow Fever,' (an impropriety productive of all the mistakes, all the controversy, all the warmth of discussion, exhibited by the writers on the subject), was really and truly the typhus of temperate and cold climates, assuming a monstrous, a new, and most destructive form, through the agency of a tropical climate.' * I shall

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* We are enabled to appreciate the value of the observations of those men who have given their opinion against the existence of contagion in Malignant Pestilential, or Boulam, called by them 'Yellow' fever, by adverting to what we are told were their real sentiments on the subject. Thus, a French writer, M. Moreau de St. Méry, asserts, that Dr Rush declared, on his deathbed, that he had denied contagion for *a particular reason*, although he had never, for a moment, altered his belief in the infectious nature of yellow fever. He disavowed, in his last moments, every thing which he had written in favour of non-contagion. 'Il a desavoué, à son heure suprême, tout ce qu'il avoit ecrit en faveur de la non-contagion.' The first part of this assertion relative to Dr Rush's denial of contagion for *a particular reason*, we have no grounds for believing. Whatever he said or advanced, I am convinced he believed to be true at the time; but it cannot be denied, because it is well known to all who were best acquainted with the Doctor, that his versatility of opinion on this subject was most remarkable and unaccountable. I have information which I cannot disbelieve, that the deathbed confession and contrition stated by M. de St Méry, are true;—and that his last, and we should suppose his firmest, as it was his first opinion, was, that the fevers which devastated New York, Philadelphia, &c. were highly contagious, and not derived from domestic or local causes. The same purity of motive cannot be attributed to many others. The fact above stated is certainly very important; for it may serve to throw into light the sinister views of those who have actually seen the disease, and witnessed its infectious nature, and yet have maintained its non-contagion. The majority of the writers subsequent to the years 1798 or 1800, have positively not witnessed the malignant pestilential, or Boulam fever, but the yellow remittent; and, from some affinity of symptoms, have believed themselves competent to affirm, that what they saw, was the malignant pestilential fever; and that, consequently, the malignant pestilential fever was not contagious. I believe Dr John Armstrong, in his late most valuable work on Typhus, alludes to this misconception, when he says, 'An error of this kind, I conceive, has been committed by some recent writers of note, who, in their respective Essays, have frequently confounded the bilious remittent with the true Typhus fever, and thus unconsciously given the latter too high an inflammatory colouring.' p. 133. Had this proceeded from a mere confusion of idea—had the whole been 'unus utrique error, sed variis illudit partibus'—it would have been excusable;—but, to use the language of perhaps the most eloquent statesmen of the present day, applied to politicians *mali animi*, 'it is indisputable, that the

now proceed to the statement of the facts which have occurred in Clifton and Bristol, during the same period of time.

1. It will appear by the table of diseases admitted into the Clifton Dispensary, from 1st January 1813, to 31st December 1816, that of 1699 cases of disease, only 16 were typhus, or only 1 in rather more than 106. This fact of itself is an extraordinary one, when the circumstances of the indigent inhabitants are considered, among whom it has been universally supposed peculiarly to prevail. But when it is further known that these 16 cases occurred in situations and houses sufficiently well aired, open and clean, and in persons by no means remarkable for sordid habits; whereas, in the various courts and alleys, wherein the air is corrupt for want of due ventilation, and wherein also the rooms and persons of the inhabitants were such as to render them highly offensive, not a single case of typhus appeared, at least not one was reported at the dispensary; the inference seems reasonable, that filth, &c. are not the causes of typhus, but that it proceeds from a specific virus introduced.

2. The word Typhus has often, it would appear, in Bristol,

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poison of doctrines, at once the most pernicious and the most absurd, had been long circulating through the body of the community; doctrines not expressed in the diction of illiterate men, but penned in the well wrought periods of practised writers.' Others have assumed the office of umpires, with a most surprising ignorance of the subject of controversy. Thus, a M. Louis Valentin, has most egregiously committed himself, by roundly asserting that Dr Lining of Charlestown, and myself, 'ont imprimé aux esprits une mauvaise direction,'—and that I, in particular, only saw the yellow fever in 1792; 'et comme un medecin navigateur s'est trop pressé d'ecrire, il s'est trompé dans presque tout ce qu'il avance.' He further declares, that Dr Caldwell of Philadelphia has, in his Medical and Physical Memoirs, so refuted Dr Chisholm, that the latter has been unable to reply; and that Rush, Moseley, and Miller, have also shown the sandy foundation of Dr Chisholm's doctrine. Now, it is clear that this writer, whoever he is, has never consulted my writings, nor made himself at all acquainted with the subject he thus presumptuously decides on;—for it is well known, that the very reverse of what he has said is the truth; and that no reply has as yet appeared to my letter to Dr Haygarth, wherein my proofs and sentiments are most fully developed. But such nonsense is unworthy attention—nor should I have noticed it, were it not possible that the ignorant and disingenuous assertions it consists of, might make undue impression on the minds of those who have not seen my Essay, or Letter, on the malignant pestilential fever. This note has been made in consequence of reading an extract from the 'French Report on the Contagion of Yellow Fever,' published in the London Medical and Physical Journal for January 1817, p. 38.

as well as in other places, been misapplied, and made the denomination, not of a fever of infection, but of one more obviously the product of emanations from a humid, a marshy, or an argillaceous soil. *

The Bristol Infirmary is a noble monument of the magnificence and benevolence of the inhabitants, by the voluntary subscription of whom it is chiefly supported; and its general arrangement as an hospital is well calculated to fulfil the objects of its institution. There are fifteen wards, seven for medical, and eight for surgical cases; and each of the former receives thirteen patients, so that, although constantly occupied by more than ninety individuals, there can never be any crowding, or

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* A curious instance of the misapplication of the word Typhus, I remarked in the neighbourhood of Teignmouth, in Devonshire, in the autumn of 1805. I give the remark as I inserted it in my Journal. 'Near Newton-Bushel at King-Steinton, is the district where the clay-pits are situated, the natural surface being either a bog or a brown gravel. This being removed, a thick stratum of pipe-clay first appears, below which is that of the potters-clay. The former is of a whitish yellow colour, the latter a fine blue. When the workmen penetrate to these strata, they take care to level the surface, and then divide any given space into squares of a foot each. This being done with an instrument calculated for the purpose, they sink narrow trenches, taking care to moisten the clay continually with water, to prevent its adhering to the instrument. When they have sunk to the proper depth, they force a kind of shovel under the layer, when of course, each square falls out distinct. King-Steinton stands on a portion of these extensive clay-beds—it is also exposed to the exhalations from some marshy tracts on the side of the river (Teigne), and some small islands which are seldom covered by water. And yet the surface on which it stands, is high, beautifully diversified, and wears every appearance of possessing a healthy atmosphere and soil. The consequence however is, that the inhabitants are short-lived; and after children arrive at the age of ten or twelve years, their constitutions are affected by the miasms, and never after recover from the effects of them, without a change of situation. This is exemplified by the complexions of the inhabitants, and by the astonishing number of graves in the churchyard. These exhalations affect the habit by producing agues, remittent fevers, and dysenteries, which generally terminate in scirrhous livers and dropsies, and are most active during the warm months. If, during these months, a removal is effected to even the almost adjoining village of Bishop-Steinton, the effect is prevented, and health secured. The fevers produced by this cause, are called, all over the district, Typhus and Infectious fevers.' This is a remarkable illustration of the judicious observation of Dr Mitchell of New York, that clay countries, however deep the strata from the surface, are sickly; and chalky, healthy.—St Philip's parish of Bristol may be considered another instance.

improper accumulation of any kind. Certainly the general appearance of the house is highly creditable to the immediate superintendents. In this hospital, the mode of arrangement of patients, which is always adopted, I understand, tends much to confirm the opinion, that those cases said to be typhus have been in no instance infectious. These cases are placed promiscuously in the wards with other patients labouring under very different complaints;—and this is done, not through any negligence, but from a confidence of their not being infectious. This account, derived from the present very able and attentive apothecary Mr Swayne, is strengthened by that of Dr Thomas W. Dyer, who discharged the arduous duties of apothecary, with the highest credit, for more than twenty years; during which long period, he informs me, he almost never knew an instance of infectious fever in the house. Of the out-patients none are cases which require close attention;—should they become so, they are immediately made in-patients. The number of out-patients during the last four years, ending the 31st December 1816, amounted to about 4000 medical cases, of which there was not one of fever. Of the medical in-patients, the following is a correct statement. In a tabular return, in which the number of medical cases admitted into the Bristol Infirmary from 1st January 1813, to 31st December 1816, are stated, distinguishing the number received from the different parishes of the city respectively, during that period, the following facts occur. The total number of medical patients is 2281; of these, 74 were cases of typhus, so returned at least, giving a proportion to the whole admitted of 1 to about 31, or 1 to about 85, including out-patients; and 100 of fever so called. Of the 74 cases returned as typhus, 13 died, or 1 in 5.9. The number of cases of fever therefore is 174.—Now, of this number, 29 were sent from St Philip's, 24 from St James's, 15 from Temple, 14 from St Paul's, 12 from St Michael's, 10 from St Nicholas's, 18 from St Augustine's, 10 from St Stephen's, 8 from Redcliffe, 5 from St Peter's, &c. The first of these parishes, St Philip's, except the broad and spacious street called the Old Market, is extremely low,—marshy towards the Froom, and argillaceous towards the Avon; and there, where houses are not built, brick-kilns and clay-pits abound. It is therefore more probable at least, that the number of fever cases sent to the Infirmary, partook more of the nature of remittent than infectious fever, more especially as 18 of the 29 occurred in the summer and autumnal months. A considerable part of the parish of St James's is in low ravines, through which the Froom runs, which, for some years, has been dammed up to constitute part of the floating harbour, and the water of which is constantly stagnant, and loaded with every species of impurity, and, in the warm months, emits most offensive exhalations. Here, then, we find a much more probable agent than typhus infection. The same may be said of a large portion of St Augustine's parish, from which eighteen cases of fever were sent, the occurrence of twelve of which was in the warm months. College Street, and all the adjoining small streets and lanes are built on made ground, recovered from what is called Canon's Marsh, the water in the drains of which is always stagnant and putrid. Two of the parishes are more particularly deserving of attention, Temple, and Christ-Church. The first of these is one of the most populous, and the most poor. It contains considerably more than 5900 souls, and of these more than 3000 are in a state of the most wretched indigence; notwithstanding which, I am assured, that, although there is annually a great deal of sickness, the consequence of poverty and deficient nutriment, yet not a single instance of any thing like infection has occurred to the knowledge of my informant. Of the fifteen cases of typhus stated as received into the Infirmary, eleven occurred in the warm months. Within the limits of Christ-Church parish, is the street called the Pit-hay, the rag-fair of Bristol. The poverty, the filth, the closeness, the stagnation of air, and the crowded population of most of the houses, are only to be conceived by those who have witnessed them. The pastor of this parish, always attentive to the comfort of the poor of his flock, frequently requested my professional services for the indigent sick of this district; and, although I have visited some of the most loathsome of the habitations, and seen families consisting each of from six to ten individuals, inhabiting rooms not ten feet square, and breathing an air which almost suffocated me on encountering it, yet never did I see an instance of typhus. From this parish only three cases of fever were received into the Infirmary during four years, and two of these were in summer. The parish of St Paul's is peculiar. The streets and houses are of recent construction. The natural surface is very low and very damp, in many places marshy, and in most places, on sinking wells, water is found at the depth of a few feet. To remedy these evils, a considerable extent of made ground has been formed, on which Portland Square, and some of the adjoining streets, have been laid out. The streets are very regular and spacious, and the houses, in general, are built with every attention to elegance, convenience, and ventilation. Notwithstanding this, no part of the city is more subject to fever, the product evidently of humid and marshy miasmata. Its seemingly mixt state, and its frequency, have doubtless often given rise to the mistaking it for typhus, the essential property of which, however, contagion, it is not possessed of.

3. St Peter's Hospital is rather the general poor-house of the city of Bristol, than an hospital; but, nevertheless, there is an ample and very suitable medical establishment for such cases of sickness as may occur in the house itself, or such sick poor of the city out of the house as the committee of relief shall direct, or such as may be occasionally sent to it,—for it is the asylum of the poor, who, being distant from their own country, or parish, are destitute of parochial relief. In all these respects it is a most important and valuable institution. The house is calculated for the comfortable accommodation of 400 paupers of all descriptions. It is always full; and the unfortunate, the superannuated, and the orphan poor, are perpetual inmates. The males and females have distinct wards; and, such is the attention to feelings of delicacy and decorum, the superannuated, the decayed, and the children, have their respective wards separated from the rest, the latter with suitable superintending matrons. There are also distinct wards for male and female lunatics, with attached and appropriate cells for the worst cases. The sick, more especially cases of fever, are placed in wards, spacious, clean, and well ventilated, which have no interference with other parts of the house. The estimate of the annual number of sick of all descriptions is about 600, the greatest portion of which is adventitious, that is, taken up as vagabonds and beggars; the rest are cases occurring amongst the constant inmates, or recommended by the committee, although not inmates. Under such circumstances, did much infection exist, we should not be surprised. The truth, however, is, I am assured by Mr Morgan, the house apothecary, whose merit is evinced by the excellent state of the institution, that infection has never been generated in the house; but whenever it has appeared, it has been introduced by some of those unhappy beings who seem to be the outcasts of society. A very interesting and important circumstance was stated to me when I visited the hospital. Ever since the conversion of that part of the Avon which passes through Bristol, into a 'floating harbour,' St Peter's Hospital has been infinitely more subject to sickness than at any preceding period. The house stands immediately on the northern bank of this river, so that what formerly contributed greatly to its general salubrity, by facilitating a perpetual drainage of filth, has now become a source of evil to it. The disease observed as more particularly produced by the exhalations from the almost stagnant water of the river, thus become a floating harbour, is a low fever, partaking much of the nature of synochus, but marked with indistinct intermissions. The number of cases of typhus or infectious fever has been 50, during the period from 1st January 1813, to 31st December 1816; and, of these, sixteen have died, or one in rather more

than three, a proportion far exceeding what has happened at the Bristol Infirmary, during the same period, and which seems only to be accounted for, by the symptoms of the disease acquiring more violence from the insalubrity of the situation for some years past, and by the condition of many of the subjects when brought into the house. This result, however, furnishes an additional and satisfactory proof, that the virus of typhus infection is specific; for no establishment of the kind can be kept in a more perfect state of cleanliness and ventilation; and in every instance the infection appears to have been traced to a source foreign from the house itself. Since the beginning of the present year, *i. e.* from 1st January to 12th March 1817, about twenty cases of typhus have occurred. The infection was introduced by a wretched coloured man, found destitute in the street, and received into the house, without the nature of the disease he laboured under being ascertained.

4. The Bristol Dispensary, the benefits of which extend to the sick poor of the whole city, is divided into two districts, as equally apportioned to the population as circumstances can admit. I obtained information from the medical gentlemen conducting this important institution, founded on their respective registers; and, as far as relates to the prevalence or existence of infection, certainly it may be considered as satisfactory. In the north branch of the Bristol Dispensary, the number of patients admitted from 1st January 1813 to 31st December 1816, was 3399. Of this number there were only fourteen cases of typhus so entered; three of these were from St James's, ten from St Philip's, and one from St Paul's. Into the south branch, during the same period, there were 3534 patients admitted; and, of these, twenty-six were stated as cases of typhus, almost all from the parish of Temple. Receiving these, as well as the fourteen in the northern district, as actually cases of typhus, or fever of infection, our astonishment must be excited that only forty occurred in a mass of sickness amounting to about one-thirteenth of the whole population of Bristol.

It appears, therefore, that of 1699 patients admitted into the Clifton Dispensary, 2281 into the Bristol Infirmary, about 2400 into St Peter's Hospital, and of 6933 into the Bristol Dispensary, or of a total of 13,313 cases of sickness occurring during the same period, only 180 are stated as cases of typhus, or one in about 74. But, when we consider how doubtful the correctness of the statement of typhus cases, as proceeding from infection, the legitimate sense in which the word should be received, is rendered by the information obtained at the Infirmary more especially, we may estimate the proportion of cases of infection to the total number of sick as infinitely less; perhaps at one in 140.

The foregoing facts tend to establish only one partition of the proposition, viz. that typhus infection is not the offspring of filth, crowded unventilated rooms, &c.—it remains to adduce facts, which go to the establishment of the other partition, viz. that typhus infection does exist, and may be propagated in places the most clean, most freely ventilated, and in all respects the best regulated. If such can be adduced, then the proposition, I apprehend, may be deemed proved, that typhus infection is specific, and not the produce of adventitious circumstances. In this last respect, Bristol is by no means exempted from infection; but, of many instances which could be given, I shall select the following from among public schools, in a charitable foundation, as it seems to place the subject in a particularly clear light.

5. The city school in Christmas Street, and Colston's in St Augustine's Place, present a remarkable contrast in the circumstances of accommodation, situation, ventilation, and internal management; and yet the latter, in which every thing capable of contributing to the maintenance of health exists, has been more subject to the infection of typhus than the former, where many things, we should conceive, injurious to health, may be observed. The city school stands in perhaps the very lowest part of Bristol, surrounded closely on all sides by houses, many of the meanest description, and immediately on the bank of the Froome, which, since the damming of the Avon, and the conversion of the channels of both rivers into a 'floating harbour,' contains a profusion of the most impure cleansings of a populous but most filthy district of the city, is always stationary, always stagnant, always covered with a thick layer of gross impurity, and frequently emits the most offensive odours. It appears to have been originally the site, and probably the very building called, in ancient times, St Bartholomew's Hospital, for leprous, and, I believe, venereal ('Brennynge,' supposed to be lues venerea) patients. Mr Barrett designates it by these expressions, 'the house of St Bartholomew's, old, dark, and in a low inconvenient situation.' (Hist. of Bristol, p. 375, and 383.) Loathsome as the situation is, the house itself is certainly capable of improvement, by throwing the small unventilated dormitories of each floor into one tolerably spacious one, and attending to the cleanliness of the house in general, and the persons of the boys. Colston's school, originally a Carmelite friary, and called the White Friars, at one time distinguished by Queen Elizabeth holding her court in it, and usually, in that age, the residence of the nobility visiting Breslot, (Barrett, 414.) is perhaps not surpassed by any similar establishment in the kingdom. Possessed, as its situation is, of every requisite to render ventilation and cleanliness perfect, its natural advantages

have been indefatigably maintained and improved by that most exemplary master, Mr W. Haynes. It furnishes a high and pleasing gratification to view this establishment in all its parts. Such has been the salubrity of this most excellent establishment, that in 56 years, no more than twenty have died, out of a constant average population of 96 boys, which gives an annual mortality of perhaps no more than one in about 268. This appears from the following detail. The establishment is for the maintenance and education of 96 boys; 14 are annually discharged, and 14 new boys are received, so that the following equation gives the proportion of mortality stated—96 × 56=5376÷20= 267.16. Nevertheless, typhus has more frequently appeared in it, than in the City school, where the establishment is for 40 boys. I have reason to believe the infection has been in most instances traced to its origin. One instance may suffice. In the winter of the year 1811, a family, respectable in their circumstances, and residing in a healthy part of Bristol, had the infection of typhus introduced into their house, by means not now ascertainable; and, during the prevalence of the fever consequent thereupon, one of the sons, who was a boy in Colston's establishment, introduced the infection into the school by means of his clothes; and, at the end of four days, the fever appeared, and spread with such rapidity, that before Mr Haynes was aware of the existence of infection, a number of boys were seized with it. The whole number of boys infected was 57, of whom only two died. Judicious means of prevention were employed; but the extirpation of the infection was accomplished with some difficulty. Besides separation, and minute attention to general and personal cleanliness, an usual mode of prevention was resorted to, with much beneficial effect. All the boys apparently well were exposed to the cold shower-bath every morning during the prevalence of the infection. These interesting particulars, Mr Haynes, the excellent master of the school, and Mr Maurice, the surgeon-apothecary, who so ably treated the disease, and who always professionally attends the school, favoured me with, when I visited the institution a few months ago. It is not, however, to be inferred, that want of cleanliness, imperfect ventilation, &c. have no agency. The present instance furnishes a proof of the contrary. Although typhus has much seldomer appeared in the city than in Colston's school, yet in the former it has uniformly been more violent and more fatal. In general it may be observed, as an established fact, that wherever the infection of typhus gets admission, or is generated, its violence and fatality are less in proportion to the degree of cleanliness, free ventilation, &c. maintained. Its propagation, however, is not prevented; consequently, *when it* unhappily appears in the dwellings of the poor, it spreads with more rapidity, and is more devastating in its effects, than in habitations more salubriously circumstanced. From the premised facts, indeed, it may be presumed, that the accumulation of filth, imperfect ventilation, &c. produce of themselves no disease, certainly no febrile disease, in the persons of those not *constantly* confined to the rooms in which they exist. Many manufactories, many prisons, many work and alms-houses, and many hospitals, improperly regulated, or badly constructed, whose inhabitants are under constraint, and necessarily confined without interruption, and for a considerable length of time, to rooms where filth abounds, and where the air is never changed, and where the limits produce a crowded state of occupation, are exceptions,—often most melancholy ones. Upon the whole, the consideration of the foregoing facts, and also of the table of diseases which occurred during four years in the Clifton Dispensary, together with the state of the circumstances of the indigent inhabitants, and of the locality both of Clifton and Bristol, gives us sufficient grounds of belief, that filth, imperfect ventilation, crowded rooms, &c. of themselves, and when the inhabitants are not in a state of confinement in such, are not causes of typhous infection. The table annexed exhibits chiefly the diseases of active life, although it appears that few places are more remarkable than many of Clifton, for the accumulation of filth, &c. the causes to which typhous infection is usually assigned.

I have thus endeavoured to show what is not the origin of typhous infection. The facts I have adduced as evidence of this, are indeed confined to a limited space; but that space is a large and populous city and parish; and the causes which produce certain effects in such a space, must doubtless, according to the known laws of the economy of nature, produce the same in a larger space, the circumstances of both being the same. What is the origin of typhous infection,—what is the composition of its virus, and how generated,—I pretend not to know; and, perhaps, if we refer to the labours of the ablest chemists in the investigation of it, we shall find that their researches amount to the same conclusion: for, what certainty do we acquire in this knowledge, by being informed, that ‘ the effluvia from the human body communicating infection, is hydrogen gas, *charged with some animal substances?* ’ This indeed seems to be ‘ darkening counsel, by words without knowledge. ’

6. Another source of error, or rather of misconception, with respect to the existence of typhous infection among the indigent inhabitants of Bristol, is the occasional occurrence of scarcity of provisions, almost amounting to famine, and the substitution of corrupted or not sufficiently nutritious articles of food. I engaged pretty largely in the discussion of this interesting

subject on a former occasion (see Edinburgh Medical and Surgical Journal, vol. VI. p. 412—415); and I have reason to believe the conclusions I there drew are correct and satisfactory. Several instances are on record of epidemics being the consequence of scarcity of provisions and deteriorated food in Bristol; but, from what has been stated in the work referred to, and from the imperfect information I could obtain of the nature of those epidemics, I am induced to relinquish every idea of their originating in infection, although the usual, indeed general, opinion entertained is, that they were infectious, or typhus fever. In the annals of Bristol, instances are recorded in the years 1597, 1608, 1752, 1765. The most recent happened, I believe, in 1795 and 1799. These were attended with a very fatal epidemic fever. Many afflicting details of the disastrous consequences have been given to me by gentlemen, who, as agents of charitable societies, took a very active part in the investigation of cases of distress, and in their relief. Misery of every description prevailed; but the fever, as far as I could collect from this source of information, was evidently a fever of exhaustion, not of infection. From the medical gentlemen who at that time practised in Bristol, I could obtain no precise account of this direful calamity,—a deficiency much to be regretted. That famine may sometimes be the precursor of pestilence, I believe; but it is not so from the mere privation or deterioration of food; it is from the superinduction of infection, to which, under such distressful circumstances, the poor are more exposed. Riverius has observed, ' Quando magna adest annonæ caritas et penuria, unde vulgare illud, ὁ λοιμος μετ᾽ λιμον pestis post famem. ' It is a vulgar observation, but it is also a vulgar error. A disease, however, equally fatal, does arise from the exhaustion consequent upon famine; and the symptoms of it assuming the features, in some degree, of typhus, it is thence too frequently mistaken for it, to the irremediable loss of the unfortunate sufferer. This disease is the Asthenia abstinentium of Sauvages (Nos. Meth. Tom. I. 805)—' Cutis arida, flava, rugosa, os arescebat, lingua et dentes nigrescebant, vox raucescebat, macies magna, nulla perspiratio, dejectio, mictio, ' &c.—a disease which in Scripture is designated by two words, מְזֵי רָעָב, rob mui, fame combusti, which in the English version is translated, ' they shall be burnt with hunger, '—(Deuter. xxxii. 24.) This is the denunciation of the Almighty himself, and is as awful as it is grand. The expression has been variously rendered, according to the conception of the effect of famine formed by different nations. Thus, in the Septuagint, it is τηκομενοι λιμῷ, liquescentes fame; the Latin version of the Syriac has it conturbabuntur fame; of the Chaldaic, inflati erant fame; but the original in one word comprehends the whole. Although rather foreign to the object of this paper, I cannot forbear giving myself the gratification of directing the attention of the reader to a valuable paper of Mr Bacot's, in the 7th Volume of the Transactions of the Medico-Chirurgical Society of London, in which a most instructive description is given of this species of asthenia, as it fatally prevailed in a battalion of the guards serving in Spain in 1812–13. I the more readily insert it here, because it is a disease that I believe has never been accurately described before. 'The patients usually came to the hospital complaining of chilliness, languor, and depression, both of strength and spirits; the countenance wan and melancholy; the pulse small, frequent, and tremulous; and the surface of the body unusually cold to the touch. Giddiness of the head was a frequent complaint, and a deep and constant sighing was an universal symptom; yet there were none of the common attendants of the first attack of fever, no violent headach, nausea, or thirst; no accession of heat, or marked rigors, in the first instance. I have seen numbers of men brought to the hospital, so attacked, die in 24 or 36 hours after their admission, without a prominent symptom, insensible to every kind of stimulus, and never having any accession of heat or increased action of the vascular system, from the moment of the attack to the hour of their death. In many men of very robust habit the disease assumed more of the common forms of fever, and very soon put on the typhoid character, with parched tongue, low muttering delirium; and terminating, in some instances, in a suffusion of bile over the whole surface of the body.' (p. 379.) This is the disease so often among the poor mistaken for typhus, because frequently whole families are prostrate under its direful influence. Many instances of this occur every winter, but at the periods stated more remarkably, because the cause more extensively and more severely existed. The present year would have pre-eminently furnished elucidations of this fact, had not the consequences of famine been in a great degree averted by the extremely judicious measures adopted by the Mayor, and cheerfully acceded to by the more wealthy inhabitants. It may not be irrelevant to remark, that the misapplication of the word typhus, so frequently occurring in this lamentable species of asthenia, may serve, perhaps, as a guide in detecting similar misapplication in those extraordinary accumulations of fever inserted in the reports of fever under the denomination of Typhus, which we hear and read of in other towns and cities equally populous as Bristol, and equally exposed to the causes of asthenia abstinentium.

8. I have no doubt in my own mind, that typhus, plague, and the malignant pestilential ('yellow') fever, derive their origin from a specific virus generated always in the same way, what-

ever that way may be, and uniformly regulated by the same laws, but modified by climate. This is not the place to enter on a discussion of the subject; but I may observe, that the affinity of their symptoms, the morbid changes produced on the organs of the body by them, as well as the conformity observed in the mode of treating them, which experience has proved to be the most judicious, serve to give stability to this opinion. The series of temperature in which they are generated and may be propagated, seems to be this:—typhus in cold, plague in warm, and malignant pestilential ('yellow') fever in tropical; but all connected with each other in a regular gradation of violence or intensity of symptoms. Typhus is a native of Great Britain; plague is not a native, but may be extensively propagated. The malignant pestilential ('yellow') fever differs from both, in as much as the virus of the infection is generated in a cold, but acquires its peculiar features in a tropical climate, or in a temperature equal to a tropical; and in that only can it be propagated. It has been, therefore, happily called by Dr Parr 'a destructive monster.'—(See Med. Dictionary, Vol. I. p. 246.) *

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* Were I called upon to designate the typhus of tropical climates by any name used in this country, so as thereby to express its character more distinctly than perhaps that I have assigned to it (malignant pestilential) does, I would say it is what Dr John Armstrong has so happily called 'Congestive Typhus.'—See Practical Illustrations of Typhus, p. 60—83.) The very judicious observations of this physician on the curative treatment of congestive typhus, puts this affinity in a still clearer light. (p. 230.) 'For a long time,' says he, 'I overlooked one of the principal effects of calomel in congestive fevers, *till at last it was forced upon me by patients almost invariably recovering with rapidity when ptyalism* was excited.' (p. 235.) The conformity of this gentleman's sentiments with mine is very remarkable, although it probably escaped his memory at the time. Two and twenty years ago I thus remarked on the effect of calomel in the malignant pestilential fever at Grenada—' The effect of the medicine given in this manner (viz. ten grains every three hours, with or without opium, as the state of the bowels required) may be perceived after the third dose; in general, the patient becoming calmer, less restless, less anxious; his skin being softer, and possessed of an agreeable heat; the stomach being perfectly retentive, however irritable it might have been before; and the eyes recovering their former lustre and sensibility. When at length salivation takes place, the patient is left free from disease, with a moderate warm moisture on the skin; and, very soon after, signs of returning health are indicated by calls for food,' &c.—(Essay, Vol. I. p. 353.) As far as I know, and my researches on this subject have been pretty extensive, I have every reason to believe that the practice in fever, ' congestive fever,' of saturating the system with mercury, out of India, originated with myself. One of the first cases of fever in which I employed it was that of James Laing, Esq.

The records of Bristol present us with numerous instances of epidemics called "plagues." Whether they were really pestilential or not, we have too scanty materials to enable us to form a correct opinion; and indeed it must be confessed, that few places so important in a political and commercial view as Bristol is, possess less information in their medical history. Thus, in the kalendary annals or corporation registers, of which there is an ancient parchment roll in the Bristol City Library, we are told, that, "A. D. 1348, plague raged generally." "A. D. 1565, a great plague,—2070 died." "A. D. 1575, a plague." "A. D. 1603, in July, began the greatest plague that ever was known in Bristol; continued until January 1604; more than 3000 died." "A. D. 1645, the pestilence raged in Bristol; about 3000 died." The only parishes in which there is any particular mortality specified, are St James's and St Michael's. In the former, from 25th March 1565 to 13th February following, 188 died; from 3d July 1575 to 20th January following, 137; from 20th August 1603 to 22d March following, 390; and from 11th April 1645 to 18th February following, 340. These were buried in that part of the churchyard which, either from superstition or dread of infection, has never since been opened, but on which the Michaelmas fair is annually held. In the latter it is said, that, in the pestilence of 1645, 180 died, and were buried in its churchyard. Of these plagues, besides the short records I have stated, I have obtained information establishing the fact of their existence only in two instances. The first is that of 1348, so vaguely and unsatisfactorily spoken of in every history of England, ancient and modern. Froissart, although contemporary, and a most minute chronicler, does little more than mention it, in one of the MS. additions in the Hafod Library, and placed in the 150th chapter by Mr Jones in his translation. In noticing some extraordinary fanatics who came from Germany to England at this time, performing penitencies to entreat the Lord to restrain his anger, and withhold

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now of Straitham in Middlesex, in the year 1789. Since then I have uniformly used it, and never, when it has acted on the system, without success. It has indeed proved itself, in my practice, 'requies ea certa laborum,' and 'medicamen munere Divûm.'—(Fracast.) Its use in local inflammations in this country, most certainly Dr R. Hamilton of Lynn-Regis has the honour of. With respect to the existence of typhous infection within the tropics, I may refer to that excellent work of Mr James Johnston on the Influence of Tropical Climate, and also to 'the East India Vade Mecum' of Captain Thomas Williamson, in which we cannot suspect any bias to contagion or non-contagion, but in which we find honest, correct, and disinterested observations.—(Vol. II. p. 262.)

his vengeance, he adds, "for at this period an epidemic malady ravaged the earth, and destroyed a third part of its inhabitants."—(Jones's Transl. Vol. I. p. 391.) Grafton and Fabyan are not more particular; but Henry Knyghton, a canon of Leycester, and also a contemporary and an eyewitness of its fearful ravages, gives the following very full, perhaps exaggerated, account, which, not having seen quoted, only referred to, in any of the histories, I here transcribe from the original, with a version drawn up by a learned friend.

"Anno Domini 1348. Isto anno et anno sequente erat generalis mortalitas hominum in universo mundo. Et primo incipit in India, deinde in Tharsis, deinde in Saracenos, postremo ad Christianos et Judæos, ita quod in spatio unius anni, viz. a Pascha usque ad Pascham, *ut rumor in Curia Romana percrepuerat*, mortui sunt in illis remotis regionibus *viij. M. legiones præter Christianos quasi subita morte.* Tunc pestis dolorosa penetravit maritima per Southamptonam et venit Bristoliam, *et moriebantur quasi tota valetudo villæ quasi subita morte præoccupati*, nam pauci erant qui lectum occupabant ultra iij dies vel duos dies aut dimidium diem; deinde mors ipsa sæva prorupit circumquaque *secundum cursum solis.* Eodem anno fuit magna lues ovium ubique in regno, adeo quod *in uno loco moriebantur in pastura una* plus quam v. m. ovium, et in tantum putrescebat, quod nec bestia nec avis tangere volebat. Et oves et boves per campos et inter segetes vagabant errantes, et non erat qui eas agendo fugaret aut colligere sed in sulcis deviis et sepibus morte perierunt numero incomputabile per universas regiones præ defectu custodis, qui tantus defectus extitit *servorum* et famulorum, quod non erat quis qui *sciret quid facere deberet;* nam non occurrit memoria tam rigidæ mortalitatis, et tam sævæ a tempore Vortigerni regis Britonum, in cujus tempore ut testatur Beda de gestis Anglorum, vivi non sufficiebant sepilire mortuos," &c. (Henrici de Knyghton canonici Leycestrensis de Eventibus Angliæ, lib. iv. ed. 3. Historiæ Anglicanæ Scriptores ex vetustis manuscriptis X. p. 2598.) A version of such barbarous Latin must be difficult.

"A. D. 1348. In this and the following year there was an universal mortality among mankind. It first broke out in India, spread to *Tarsus*, then attacked the Saracens, and lastly the Christians and Jews; so that in the space of one year, viz. from Easter to Easter, *(as was currently reported at Rome)*, there died in those distant countries, *and as it were by a sudden death, thirty-two millions of souls*, besides Christians. This grievous plague, penetrating the sea-coasts by Southampton, reached Bristol, *where all those of the city who were most healthy, being attacked unexpectedly*, perished; for few were confined to their beds more than three days, two, or even beyond half a day.

This cruel mortality then diffused itself through all parts *from east to west.* The same year was a great murrain among sheep throughout the kingdom, so that 5000 perished in *one quarter only*, and in one single feeding ground; whilst such was the putrescence, that neither beast or *bird of prey* would touch the carcases. Both sheep and cattle straggled about through the fields and standing corn, without restraint, or for want of keepers, and consumed away in incredible numbers, either in solitary ditches or under hedges. The death of *bondmen or of household servants*, was such, that none remained who *knew how to discharge the necessary duties.* For the memory of so dire and cruel a mortality did not occur since the days of Vortigern king of Britain, in whose time, as Beda testifies, the living were not sufficient to bury the dead.' It appears from the foregoing passage that Bristol was among the first places in England the plague visited. Fordun, who lived at the same period, who was also a witness of the horrible calamities occasioned by it, but who does not appear to have known any thing of Knyghton, corresponds pretty exactly in his description of this plague, as it appeared in Scotland in the following year. 'A. D. 1349, tanta pestilentia et mortalitas hominum in regno Scotiæ erat, et etiam annis pluribus præcedentibus et subsequentibus generaliter in toto orbe prævaluerit, quanta a mundi primordio huc usque nunquam audiebatur, aut in codicibus, ad futurorum notitiam, est conspecta. In tantum enim pestis illa malitiam exercuit, ut fere tertia pars generis humani debitum naturæ solvere compelleretur.' (Scotichronicon, lib. xiv. c. 7.) Strange that no record, besides the short notice of so direful a calamity, can now be traced in the public or private collections of Bristol.

The second instance is the plague of 1645. The local circumstances of Bristol at this calamitous period were very unfavourable to health. A population stated at 96,000 souls was confined to the narrow limits of the ancient city, with suburbs, which then extended little beyond the more elevated part of the extremity of the peninsula formed by the conflux of the Avon and the Froom, the central part of the present city, walled in and fortified, not more than about two miles in circumference; the streets extremely narrow and very irregularly, or rather without any plan, laid out, and the upper part of the houses built of wood, high and projecting, so as almost to meet each other, consequently dark and dismal, and very imperfectly ventilated. The valleys surrounding nearly two-thirds of Bristol, through which the Avon and Froom flowed, were then, as they are now, indeed, but in a considerably less degree, extremely marshy. Add to this, the distracted political state of the inhabitants, and their misery from the heavy contributions imposed upon them; —many royalists, but a much larger portion influenced by the gloomy and fanatic enthusiasm of the puritanical party of the times, and a third set still more dangerous, pseudo-royalists, styled by the author of Mercurius Rusticus, ' The damnable sect of the Hothamites, those state-hereticks,' (p. 177), producing continual jarring, and dangerous and even fatal commotions, during almost the whole of the time (from 27th July 1643, to 11th September 1645) Prince Rupert held the place. That these were alone sufficient to cause the destructive malady which prevailed, we are not authorized to believe;—but no doubt can be entertained that they were highly so, either in predisposing the persons of the inhabitants to suffer by the imported infection, or in augmenting its violence. We have, I believe, no proof of imported infection;—yet, that pestilential infection was imported or introduced into the city and garrison of the castle, we have no reason to doubt; for contemporary writers, and eyewitnesses, and even principal actors in the warfare which at this time raged both within and without the city, mention it with confidence. Thus Prince Rupert, in his vindicatory narrative addressed to the King, assigns its ravages as one of his motives for surrendering the city; for he speaks of the inefficiency of ' the auxiliary and trained bands by interruption of trade and commerce, by *the pestilence then raging there*, by their poverty and pressures laid upon them.' The indecision of Fairfax and Cromwell respecting the undertaking the siege, is attributed by Sprigge to this cause—' Against undertaking the siege of Bristol it was urged that to go thither was to hazard the whole army, *the plague being sore in the city*, 100 dying weekly, and that it was in most of the villages about the town.' One of the kalendars says, ' there was then a mortality or sickness of pestilence in the city, which continued till near Christmas.' Another says, that ' 120 persons died weekly of the plague in the city.' Cromwell himself, in his official statement of the transactions of the siege, says, ' We had a council of war concerning the storming of the town, about eight days before we took it, and in that there appeared great unwillingness to the work, through the unseasonableness of the weather, *and other apparent difficulties*.' There was no deficiency of provision or ammunition in the place; for Cromwell, in the same letter, says, ' the castle victualled for near half so long,' *i. e.* half of 320 days. It is, however, a circumstance not a little curious, and which may serve to explain the ambiguity of the expression, ' apparent difficulties,' that in the same important document he positively says, ' I hear but of one man that hath died of the plague in all our army, although we have been quartered amongst, and in the midst of infected persons and places.' Our knowledge of Cromwell's character may indeed lead to a suspicion that he wished to impress on the minds of his fanatic followers, that they were particularly favoured by Heaven, and thereby shielded from the plague, whilst their enemies, bereft of providential protection, were exposed to and suffered by it. The mortality among the garrison and inhabitants must have been much greater than that stated in the short kalendary notice above quoted; and if we calculate on the population, and the local circumstances of the city, and the most distressing privations of the inhabitants, at the time, and for two or three years preceding the siege, we cannot estimate it at less than 10,000. (See Rushworth's Historical Collections, Vol. VI. p. 70–88, for Rupert's and Cromwell's official documents.—Sprigge's Anglia Rediviva, for do.—Angliæ Ruinæ, or Mercurius Rusticus, ann. 1647–48, p. 174–183, and Microchronicon September 1645, for the state of Bristol.) Tradition furnishes a fact respecting this pestilence, which may be considered as an additional proof that mere filth, &c. are not efficient agents in the production of infection. About where Christmas Street now is, and consequently ranging the banks of the Froome, on one side from the Froome, now St John's Gate, to the eastward, were the stables of the cavalry, and said to have been remarkable for filth of every description, as indeed Christmas Street and its neighbourhood, still are. This spot, we are told, was the only one of the city and its immediate vicinity, exempted from the pestilence.

At several of the periods above stated, a plague prevailed most destructively at Edinburgh, more particularly in 1603–4 and in 1645; so that the malady probably existed throughout the island;—a proof doubtless of its having been literally and truly pestilential, and imported. Maitland says, that the plague of 1645 was the last we read of in that city. It is the last also we read of in Bristol;—and with him I heartily pray 'may the like never happen again, for the preservation of the citizens.' (See the History of Edinburgh, &c. by William Maitland, F.R.S. &c. ann. 1753, p. 56 and 85.)

I subjoin two Tables, one exhibiting the general state of the weather and sickness, for four years, at the Clifton Dispensary, viz. from 1st January 1813, to 31st December 1816; the other, the diseases which occurred at the same Dispensary, with the events of each, during the same period;—reserving such remarks as have been made on some of the more prevailing diseases, to some future occasion;—those on Typhus Infection, as it appears in Bristol and Clifton, having extended much beyond the limits I originally proposed. If they are found useful and important, my object will be obtained.

Park Street, Bristol, April 14th, 1817.

A TABLE exhibiting the General State of Weather and Sickness for Four Years, at the Clifton Dispensary, viz. from 1*st January* 1813, *to* 31*st December* 1816, *and the Number of Pulmonary Complaints in Winter and Spring, exclusive of Phthisis.*

	1813.										1814.									
Months.	Days Cloudy.	Days Clear & Dry.	Days Rainy.	Days Snow.	Thermometer.			Med. Baro.	No. of Sick.	Pulmonary.	Days Cloudy.	Days Clear & Dry.	Days Rainy.	Days Snow.	Thermometer.				No. of Sick.	Pulmonary.
					L.	H.	M.								L.	H.	M.			
Jan.	26	5	20	6	23	32	28	29.5	37	14	10	21		31	12	38	25	30.	54	25
Feb.	18	10	18	4	35	52	43	29.7	44		13	15	9	6	25	50	33	29.5	28	
Mar.	12	19	12		26	60	43	29.6	40		15	16	8	7	30	52	41	29.	46	
Apr.	17	13	13	4	34	67	50	29.9	43		11	19	9	2	42	62	52	29.15	27	
May	15	16	8		44	72	58	29.5	28		7	24	7		42	66	54	29.5	27	
June	13	17	11		48	74	61	29.15	33		17	14	17		49	70	59	29.15	27	
July	13	17	13		52	74	63	29.9	19		13	17	13		58	77	67	29.7	29	
Aug.	10	21	10		50	70	60	29.15	39		7	24	7		48	70	59	29.12	30	
Sept.	13	17	13		48	66	57	29.5	35		5	25	5		45	68	56	29.15	24	
Oct.	20	11	20		38	64	51	30.1	23	14	13	18	13		35	60	47	29.	27	15
Nov.	16	14	15	1	34	56	45	30.15	33		13	18	13		30	54	42	29.8	47	
Dec.	13	18	13		26	52	39	30.10	39		21	10	12	9	30	56	43	29.8	58	
	186	178	166	15					413	28	145	113	113	55					404	40

	1815.										1816.									
Months.	Days Cloudy.	Days Clear & Dry.	Days Rainy.	Days Snow.	Thermometer.			Med. Baro.	No. of Sick.	Pulmonary.	Days Cloudy.	Days Clear & Dry.	Days Rainy.	Days Snow.	Thermometer.				No. of Sick.	Pulmonary.
					L.	H.	M.								L.	H.	M.			
Jan.	22	9	9	22	26	46	36	29.18	95	22	22	9	16	6	32	46	39	30.	70	20
Feb.	16	12	12	4	38	54	46	29.9	17		15	13	9	6	28	50	39	30.2	38	
Mar.	16	15	11	5	37	68	52	30.	48		12	19	10	3	20	54	37	29.10	44	
Apr.	9	21	7	2	38	66	52	29.	43		15	15	9	4	34	65	49	29.9	32	
May	16	15	16		46	70	58	29.6	32		22	9	20	2	39	65	52	29.12	39	
June	10	20	10		52	70	61	29.12	32		17	13	17		50	68	59	29.14	28	
July	4	27	4		54	70	62	30.5	22		22	9	22		52	71	62	30.5	25	
Aug.	12	19	10		50	70	60	30.4	42		7	24	6		54	66	60	30.15	26	
Sept.	12	19	12		44	73	58	29.13	53		10	20	9		44	68	56	31.	16	
Oct.	17	14	16		44	60	52	29.19	30	15	15	16	13		39	64	52	30.14	25	32
Nov.	17	13	9		28	56	42	30.5	30		15	15	11	3	24	54	39	30.15	35	
Dec.	24	7	20	4	24	48	36	30.1	27		22	9	18	3	24	52	38	30.10	35	
	175	191	136	37					471	37	194	171	170	27					411	52

A TABLE of Diseases which occurred at the Clifton Dispensary, with the events of each,—from 1*st January* 1813, *to* 31*st December* 1816.

Diseases.	Cured.	Dead.	Diseases.	Cured.	Dead.
Amaurosis	1		Enteritis	48	3
Amenorrhœa	17		Epilepsia	13	
Abortus	4		Epistaxis	1	
Anasarca	19	2	Erysipelas	16	
Angina Pectoris	1		Erythema	20	
Anthrax	1	1	Elephantiasis	1	
Aphthæ	1		Febris intermit. infant.	3	
Apoplexia	6	5	—— catarrhalis	8	
Arthritis rheumat.	2		—— quotidiana	1	
—— podagra	4		Gastritis	6	
—— retrocedens	1	1	Gastrodynia	6	
Anthrodynia syphilit.	1		Gonorrhœa balani	1	
Ascites	8	6	Hæmatemesis	7	
Asthma	34	1	Hæmaturia	4	
Atrophia	32	6	Hæmorrhois	12	
Bronchocele	1		Hemiplegia	8	
Catarrhus chronic.	3		Hepatitis acuta	64	2
Catarrhus	21		—— typhoides	2	1
Catalepsis	2	1	—— chronica	46	1
Cancer uteri	3	3	—— gangrenosa	1	1
Cephalæa	22	1	—— apostematosa	1	
—— syphilitica	1		Hepatalgia calculosa	11	
—— ab ictu	2		Herpes	1	
Chorea sancti Viti	4		Hydrops pericardii	1	1
Cholera morbus	6		Hydrothorax	15	6
Convulsio	15		Hydroceph. acut.	37	8
Carditis	9	2	—— chronicus	1	
Constipatio	12		Hypochondriasis	5	
Contusio hypochond.	5		Hysteria	26	
Colica pictonum	2		—— cataleptica	4	
Cynanche laryngæa	1		—— hepatica	23	
—— stridula	4		Hysteritis	7	
—— parotidæa	2		Icterus	9	
—— tonsillaris	13		Ileus	1	
—— maligna	1		Lethargus	1	
—— syphilitica	2		Lepra	1	
Crapula	1		Lienteria	3	
Debilitas senilis	2		Leucorrhœa	10	
Dentitio	5		Lumbago	2	
Diarrhœa	14		Læsio uteri	1	1
Diabetes	2		Lichen	1	
Dysenteria	10		Marasmus	7	
Dyspepsia	5		Melæna	1	1

Diseases.	Cured.	Dead.
Melancholia religiosa	1	
Mania - - -	1	
Mastodynia - -	1	
Menorrhagia - -	15	
Menses cessantes -	25	
Mollities ossium -	1	
Myocolitis - -	1	
Nephritis - -	19	
Ophthalmia - -	5	
Paralysis - -	10	2
Pertussis - -	18	2
Peritonitis - -	4	
Phrenitis - -	5	
Phthisis pulmonalis	54	23
——— pul. incip.	31	
——— hepatica -	1	1
Pneumonia - -	188	2
———— typhoides	6	1
Prolapsus ani -	1	
——— uteri -	4	1
Psora - - -	9	
Pyrosis - -	5	
Proctalgia inflammat.	1	
Psoriasis diffusa -	10	
Rheumatismus acut.	76	
——— chronicus	28	
Rubeola - -	55	5
Scrofula vulgaris -	51	2
Scarlatina - -	13	
Scirrhus hepatis -	1	1
Synochus - -	36	
Syncope - -	1	
Senilitas - -	3	1
Scorbutus - -	1	
Splenitis - -	1	
——— apostematosa	1	
Strictura recti -	1	1
Syphilis - -	2	
Tabes nutricum -	10	
——— mesenterica -	2	
Tænia - - -	11	
Tussis - - -	34	
Tinea capitis -	2	
Trismus dolorificus	1	
Typhus - -	16	4
Urticaria - -	2	
Variola - -	2	1
Vermes intest. lumb. ascarid. - -	90	
Vertigo - -	9	
Miscellanea -	55	

Total Number 1699 } or 1 in
Of whom died 101 } about 17

APPENDIX.

Geological Description of the City of Bristol, and Parish of Clifton. Communicated to Dr CHISHOLM, by G. CUMBERLAND, Esq.

DEAR SIR,—Your request to have a geological description of the city of Bristol, and the parish of Clifton, I shall with great pleasure comply with, as far as my own knowledge leads me. But to make that better understood, we must begin by extending our inquiries to the surrounding country. To the south-east, towards Bath, the new cut runs through the red ground, lying on the white Lyas, which extends from *Stock* and *Potterdown* in a circle northerly, appearing partially at *Bitton*, *Upper Easton*, beyond Stokes Croft turnpike, at *Horefield*, *Redlam*, and *Gotham*, including a part of the north of the city of

Bristol; almost every where being found in an horizontal position, and containing in it beds of different shells, and a few specimens of stalks of the pentacrinite. At Stoke, we find the venus and ostrea of a large size. At Bishport under Dandry, (a branch of the Mendip), mya, ostrea, and large bivalves, cardium, &c.; at Bitton, some cornu-ammonis, while other beds are pure white without shells; at *Stoke's Croft* and *Horefield* with scarce any shells. And in the same parish, some remains of the bed called the diamond-bed, have been turned up.

From beneath these strata rises a hill of small elevation, on which the ancient part of the city was erected, consisting of beds of compact quartzoze sandstone, covered in parts with the red sand. They lie generally inclining on an angle of about 60° from north-east to south-west, and after being parted by the Froome river from the northern and upper part of Bristol, ascend, divided from the lyas by St Michael's hill, where in the church-yard wall, and one or two other places nigh it, the quartzoze rock crops out from under the lyas;—its division being distinctly visible; the walls to the north of St Michael's hill being all built of the white lyas, those on the opposite side, of the quartzoze sandstone. These beds of quartzoze sandstone continue in a north-west direction, lapping over each other, and cropping out sometimes, all through Mr Tyndal's park, Park Street, Brandon Hill, and the village of *Clifton*, by Clifton wood, and along the old sides of the Avon, the Hotwell road, till at the wells they are found reposing their last beds on the limestone, and where, at Mr Powell's garden, we have a beautiful section of the upper beds of the mountain limestone. At this transition are beds of yellow, red, and grey marl, sand and limestone intermixed. The most considerable beds of these are oolite limestone. Of all these beds I have sent up a correct delineation, with their measures, position, and specimens, to the Geological Society.

Thus we shall see that Bristol and Clifton are seated on the red ground, white lyas, quartzoze ferruginous sandstone, and the mountain limestone.

The only opportunities of viewing these rocks in their beds are, 1st, a fragment exposed in the wall of St Michael's church-yard. 2d, Another in Griffin lane. 3d, That remarkable conglomerate bed which crops out at the foot of *Brandon Hill*, near the end of Limekiln lane, and which looks almost volcanic. 4th, Another remarkable bed was till lately exposed in the new Clifton burying ground, where the quartzoze sandstone, being much decomposed, was found saturated with a species of large winged annomia, of the Productus kind, with very long spines; the mass highly ferruginous, and in part compact. This bed is now built over, but the burying ground joins to a large quarry of quartzoze sandstone where beds are distinctly seen lapping over each other north-westerly. Also on the north side of Brandon hill, near Upper Berkely place, and in other parts of the hill, this rock lies exposed.

The lyas quarries are no where exposed, except where they are always working and filling up, as under Horefield and above Stoke; but the walls, by their materials, exhibit their boundaries, on all the north side of the city beyond St Michael's hill; and under a chapel in Somerset street, large lumps of strontian full of crystals are found. At *Redland* and at *Clifton*, also, strontian is found in the veins of the limestone occasionally; and sometimes closely accompanied by crystals of galena.

The exact junction of the quartzoze sandstone with the limestone has not been as yet ascertained with precision, but it is supposed to be somewhere under Prince's buildings:—and there is no quarry open till we come to the *wells*, where, at Mr Powell's garden, just beyond St Vincent's parade, is the fine section before mentioned, consisting of 30 or 40 distinct beds. The upper Crescent is built of the quartzoze sandstone; but underneath the Mall there is a first bed of limestone, as appears by the large masses of coralloid bodies found near the surface, the mycelatæ of Woodward deeply impregnated with iron. In these upper beds of limestone are found veins of ironstone full of quartz crystals of a brilliant lustre, and some that are formed over crystals of strontian, but very rarely. In the last beds of the quartzoze sandstone, in digging wells, are found cavities full of spiculæ of iron, and radiated globular concretions of manganese and iron, occasionally connected with a calcareous spar, so clear that they at first are taken for quartz spar, till the microscope detect their rhombic structure. These limestone strata continue on both sides the Avon, occupying the greater part of *Durdham-Down* to *Henbury* and *Horefield*, and to the S. W. of Bristol, beyond the Avon, to *Woodspring Weston* and *Brean Down*, from *Portishead* to the end of *Woodspring*, forming cliffs that are beautifully exposed to the eye of the geologist. Also from *Leigh-Down* to *Clevedon*, there are abundant opportunities of viewing limestone beds. From the *Black rock* near *Cooke's folly* on the Avon, a bed impregnated with encrinital remains may be traced in a direct line to *Clevedon Church*; again appearing beyond Clevedon Flats at the back of Woodspring, where last year were made many discoveries of the heads of encrinites and pentacrinites hitherto unknown. On Leigh-

Down there is a mine of manganese belonging to Sir Hugh Smith; also lead and calamine are found near the surface on the greater part of Durdham-Down.

The Hot-springs are not peculiar to the Well-house; they are found springing up to the surface by the river side under St Vincent's cave, about February and March; and there is an abundant spring whose stream issues into the river a quarter of a mile before arriving at the *Black rock;* one of the cottages there having a well of it under the premises. It is well known also to have been pierced by the well of the upper pump-room, at a considerable depth. It therefore should seem to arise either from some large fissure in these beds, or from some other strata on which they repose; and these strata should seem to be the conglomerate, which is visible on both sides the Avon beyond Cooke's folly, in one place in a considerable mass, consisting of quartzy pebbles in a cement of ochreous clay, by some supposed to be the *Old Red rock* of Werner.

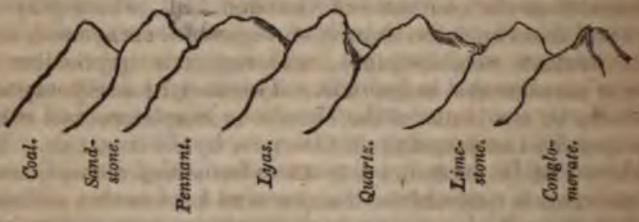
On the Lyas to the NE. of Bristol, is found reposing a coal measure, with us called Pennant, a sandstone considerably less indurated than the quartzoze of Brandon Hill, whose grey colour arises from an intermixture of vegetables carbonized, and whose fracture exhibits junks, and vegetable impressions of leaves of considerable magnitude. This may be easily examined *in situ*, on the banks of the Froome at Stapleton, and in the great quarries there, and at St George's, by the river side. But further on, at Down end, lying unconformably, a true quartzoze sandstone is quarried for the roads, as hard as that of Brandon Hill, but without a particle of iron in its composition, and containing ferns and junks of very beautiful forms, which are exposed on its fracture, the surfaces of which are well carbonized when found, but whose interior is seldom seen except where there has been a pithy cavity. This Pennant is a sure sign of coal in the vicinity.

The black rock having of late years been much worked for paving stone, has given occasion to many new discoveries of bodies contained in it; of these are fish palates of forms hitherto unobserved; swords or probosceses of fishes, and remains of crustacea; together with heads of encrinites, and plates and stalks heretofore not described. The black rock is a mass tinged with a sort of petroleum, probably exuded from its own animal remains; and sometimes it is found actually oozing from cavities in the rock. Above, this mass of rock is grey, or yellow, or reddish; and I have found small portions of a yellow sandstone much decomposed, but containing shells and parts of *alcyonia*; but it is a mere accidental patch that is left, and much smaller than that which I found two years ago at *Weston-super-Mare*, reposing on a bed of red limestone; and both correspond with that which Mr Webster found at the back of the Isle of Wight in 1814.

Thus, you have the general bases and their constituent parts; but if you pass towards Leigh on the northern side of the Avon, you will find beds of a species of quartzoze ironstone like trap, full of cavities, and what may be considered as a compact petrosilex, in a few places. Dandry is also covered by the oolite, a species of coarse freestone, full of casts of mya, cornu-ammonis, and very remarkable oval belemnites, some three feet long, yet scarce an inch at the base; and as singular short ones, with very conical alveoli, some quite perfect, yet scarce three inches long, and very thick. Besides these, this oolite contains near twenty rare shells, some very perfect, and many hitherto undescribed.

Bristol, 17*th April* 1817.

Sketch of the order of Rock.



II.

Some Observations relative to the New Method of extracting the Cataract; as proposed by Dr Löbenstein Löbel, in the January Number of the Edinburgh Medical and Surgical Journal. By EDWARD CHAPMAN Esq., Surgeon, Bath.

ABOUT six months prior to the date of this communication, on considering the many objections which admit of being urged with much propriety against the operation of extracting the cataract through the aperture caused by a circular incision of the transparent cornea, an idea suggested itself to me, whether or not there existed a possibility of removing the opaque lens, by means of an incision through the sclerotic and choroid coasts, at a few lines distance from the junction of these tunics with the cornea itself.

In order to ascertain the practicability of such an operation, and no opportunity immediately occurring to me of making the experiment on the eye of the subject previous to its removal from the orbit, I substituted the eyes of various quadrupeds, and on such made repeated trials, in the presence of several medical friends.

From these experiments, such were the results obtained in establishing the facility with which the crystalline humour will admit of removal from such a situation, that I had anticipated the pleasure of shortly communicating to the profession, through the medium of your periodical publication, the particulars of an operation possessing, on the one hand, all the advantages, and obviating, on the other, the several disadvantages of the present method of extraction.

1st, The annihilation of the objection arising out of the probability of the subsequent partial or total opacity of the transparent cornea, as a consequence of inflammation.

2dly, The injury which is not unfrequently occasioned to the fibres of the iris, by the passage of the opaque lens through its aperture or pupil, into the anterior chamber.

3dly, I had conceived that an important advantage would result from the increased facility with which in all probability the divided part would reunite, in consequence of the certainty with which the edges of the wound would remain in contact subsequently to the operation; and,

4thly, That a possibility would be thus afforded us of removing the opaque lens, although union shall previously have taken place, betwixt the fibres of the iris whilst in a state of dilatation, and the capsule of the crystalline; the pupil having commonly in such cases suffered a partial obliteration or diminution of diameter.

Notwithstanding, however, the very flattering view which I had taken of this subject, as the effect of the extremely favourable nature of the inferences deducible from my experiments, I determined, before giving it publicity, to pay it further consideration, reflecting, that as they had hitherto been confined to the eyes of oxen, sheep, &c. there might possibly exist some trifling difference in the relative situation of the parts, with respect to the human eye. Such a determination, I have since experienced no reason for regretting; for, in opportunities which were frequently shortly afterwards afforded me, of repeating the same experiment on the eye of the subject, prior to its removal from the orbit, the results very materially differed, inasmuch, that the degree of difficulty experienced in effecting the extraction of the lens, was very considerably increased; indeed they occasioned to me such disappointment, that I became somewhat dispirited from proceeding any further in my investigation.

In performing the operation on the subject, whilst the eye remained in the orbit, I made an incision through the sclerotic and choroid coats at a few lines distance from, and parallel to the edge of the transparent cornea, and occupying an extent of between one-half and two-thirds of an inch: with the extremity of the instrument having lacerated the crystalline capsule, the knife was withdrawn; but, although a very considerable degree of pressure was made upon the globe of the eye, it was not followed by the effect, as might have been expected, of occasioning the escape of the lens itself.

I found, that, in consequence of the rigidity and inelasticity which the choroid and sclerotic coats possess, and their consequent incapability of yielding to the pressure of the lens from within, in its endeavour to escape, in order to produce such an effect, it was necessary that the incision should be augmented in extent. I enlarged, in a very inconsiderable degree, the extent of the incision, and, with the assistance of the application of a very gentle pressure, the lens appeared; not however alone, but unfortunately accompanied by the vitreous humour, a very large portion of which was strangulated, and entangled in the collapse of the divided edges.

I have several times, since that period, repeated this experiment, and from the sum of their results, have found ample and sufficient reason for the deduction of the conclusion, that, through an opening less in extent than is sufficient to admit of the passage of the vitreous humour, or a partial protrusion of its substance, it is in the generality of cases impossible, without exciting a degree of pressure, which would be incompatible with the subsequent maintenance of vision in the organ, to accomplish the removal of the opaque lens.

As the cause of such difficulty being experienced by the lens in its passage through an incision less extensive, I can assign no other than the unyielding inelastic property with which the tunics are themselves endowed, in conjunction with the acknowledged difficulty which it, in common with all other bodies of a similar convex form, must inevitably suffer in the obtainment of its passage through a merely lineal aperture, or section by incision.

To obviate the inconvenience resulting from this latter circumstance, I have since endeavoured, by varying the form of the incision, to accommodate the aperture to the convexity of the crystalline humour, but have failed in deriving any advantage from such a deviation, in consequence of the smallness of the distance subsisting betwixt the edge of the cornea and the capsule of the vitreous humour.

Being convinced, therefore, and I think not without sufficient reason, that circumstances thus hostile to this innovation were unsusceptible of remedy, I had some time since resolved on not troubling you with any communication, or even with a bare relation of my experiments, and from such a resolution should not have deviated, had I not, to my utter astonishment, on reading the January Number of your publication, seen a proposal to this effect, communicated by Dr Von Embden, wherein it appears, that this new mode of extraction had been suggested to a Dr Lobenstein-Lobel, from an accidental occurrence.

In concluding, I beg leave to observe, that the object of this communication is not to despoil or deprive this latter gentleman of any merit he may himself attach to his discovery, but merely to state the reasons for my opinion, that the operation of extracting the cataract, thus conducted, will never be deserving of, or obtain, a preference to that in common use.

Bath, March 11, 1817.

III.

Contributions to Diagnosis. By MARSHALL HALL, M. D., &c. *Contribution Third: On the Characteristic Symptoms of Hydrothorax.*

THE diagnosis of hydrothorax, in its incipient stage, must be extremely difficult: and, even in a state of considerable advancement, its indications are frequently obscure, and its existence unsuspected. The distinctions pointed out by M. Corvisart, Coroll. § iii. are not much calculated to diminish the difficulty of identifying this affection in general, although they are important in distinguishing the simple hydrothorax from a disease of the heart, with consecutive effusion into the chest. It is possible, however, that the state of Hydrothorax may be frequently ascertained by a more minute examination of the posture of the patient, and, in particular, of the alternate actions and motions of the chest in respiration, than has hitherto been made. An attention to the countenance, to the particular kind of cough, and to the state of pulse, and of the urine, may also be useful in the diagnosis of hydrothorax.

With the view of elucidating this subject, it is the writer's intention, in this paper, to detail the symptoms of several cases of hydrothorax, taken with the utmost accuracy; and to add a summary of the principal characteristics of this disease.

1. The first is a case of simple hydrothorax; the patient a female about 55 years of age. First report, June 14, 1813. The countenance is pale and rather leucophlegmatic; the lips of a pale, livid, or dingy lilac colour. There is no expression of anxiety. The patient sits on the bed, on which she constantly presses forcibly with the hands, and, keeping the arms straight and extended, thus raises and supports the shoulders. Respiration consists in an inspiration made with great muscular effort, in an expiration made rapidly, and, as it were, by the spontaneous falling down of the ribs and sternum, and in a long interval before the repetition of inspiration. The shoulders are still more raised in inspiration than before; the whole chest, the sternum, the clavicles, and the ribs, are much elevated; but there is little protrusion or motion of the abdomen. The pulse is 108, and regular; the cough is only occasional. There is thirst; the skin is dry; the urine scanty; and the bowels constipated. The ankles are œdematous.—Second report, July 2d. The countenance appears of a mixed colour, leucophlegmatic, with a darkish tinge, resembling the colour of tea-paper; the lips are slightly livid. She universally raises the shoulders, by resting and pressing the hands on her knees, or on each side on the bed. Respiration consists in a full inspiration, made with effort, and by raising the shoulders considerably; in a quicker expiration; and in a long interval before inspiration is repeated. Pulse 88; full, moderately strong, and regular. Less œdema, and scarcity of urine. Thirst; bowels open.—Third report, July 10th. The countenance continues as described. She now sits on the bed, supporting herself with one hand placed by her side, and with the elbow of the other arm resting on a raised pillow. The respiration is precisely as before; inspiration is performed by an elevation of the chest; there is no protrusion of the abdomen. When the fore arms and hands are purposely made to lie along the thighs, inspiration requiring a much greater effort, the head is drawn backwards, and the shoulders are much elevated by muscular exertion. Pulse and other symptoms as before. It is unnecessary to add the other reports, of which many were made at different and distant periods. But it may be proper to subjoin the *remarks*, which were added to the case at the time it was

taken, now nearly four years ago. The attitude so peculiar, and so constantly observed in this patient, was probably adopted at once to raise and fix the shoulders, the scapulæ and the humeri; and the ribs and sternum were drawn towards these fixed points in inspiration. By assuming this position, and by employing this kind of support, too, the diaphragm and the abdominal muscles were allowed to fall into a state of relaxation, by which means also the cavity of the chest was enlarged. The enlargement of this cavity for inspiration seems, indeed, to constitute the object of all the effort used in this affection; whilst its being occupied by the quantity of fluid occasions all the distress of the disease. In the upright position, the fluid seems to press the diaphragm downwards; and thus the further contraction of this muscle, inducing a protrusion of the abdomen externally, is prevented.

2. The second case is an instance of hydrothorax, succeeding to several attacks of general anasarca from cold; the first of which occurred forty years previous to the date of these reports, from exposure to a storm of sleet and rain; the last, from drinking copiously cold fluid, when in a state of profuse perspiration. David Ross, æt. 63. The countenance participates, in some degree, in a general œdema; there is otherwise little peculiarity, either in the colour or expression. He sits up, raised in bed. The chest appears unusually high. There is considerable effort in inspiration; apparent relief in expiration. The cough produces a rattling noise, from the presence of mucus in the bronchi; the expectoration is copious, adherent, transparent, frothy, and tolerably easy. Pulse 72; of moderate force and size, and regular at this time. Tongue somewhat loaded. Bowels regular. Some thirst. Skin natural, and dry. There is general anasarca of the abdomen, scrotum, penis, thighs, legs, and of the left arm and shoulder. No fluctuation of the abdomen.—Second report, July 29th. The nostrils dilate in inspiration. He reclines in bed, supported by pillows. Pulse 100; full, strong, occasionally intermitting. Respiration, or the comparative time employed in inspiration, expiration, and the subsequent interval, is thus represented in the writer's note-book. The inspiration is rapid, performed with much effort, slightly, at first, by the diaphragm, principally by the chest, attended with a descent of the pomum Adami, and a drawing in of the integuments between the ribs. No interval. In expiration, the chest seems at first to fall down, as it were, but afterwards its contraction is continued with some degree of effort, and a rattling noise. Cough in fits during a long expiration; expectoration as before, tough, and adhesive.—Third report, August

9th. This report is not transcribed, as it is precisely a copy of that of July 29th; the pulse was very irregular. The same may be said of the subsequent ones. The patient sunk gradually, and died August 31st. On opening the body, between three and four pounds of fluid were found on each side of the chest, and about nine ounces in the pericardium. There were no adhesions; no disease of the heart. Four pounds of fluid were found in the abdomen; but no other diseased appearance. The difference between this and the former case arises from the different forms of the affection, the presence of anasarca, of cough, and viscid expectoration, and of effusion into the pericardium; and from the different posture assumed by the patient.

3. It may be sufficient, in the third place, to give one report of a case of simple hydrothorax, in which the symptoms were very similar to those of the case last related. Anne Campbell, aged 55, has been subject to cough, dyspnœa, and pectoral complaint, during two or three years. These symptoms assumed an aggravated form three weeks ago. At present the countenance is natural in colour, with a slight expression of anxiety. She lies on the back, with the shoulders, and especially the head, much elevated. Inspiration is quick; a sudden effort raises the ribs, and protrudes the sternum, the abdomen being little or not at all moved. Expiration seems to be the mere falling down of the ribs and sternum, which takes place rapidly, without effort or noise, except a little rattling at its termination. During inspiration, the muscles along the neck, especially the sterno-mastoids, are seen to act forcibly, and the head, if turned on one side, is moved in the direction of these muscles. There is a forcible cough, to raise some viscid, transparent, frothy expectoration. The pulse is about 130, more and less frequent, but otherwise regular. Tongue moist, but loaded. Bowels costive. On assuming the erect position in bed, the peculiarity in respiration, the sudden elevation of the chest with much muscular effort, and the little protrusion of the abdomen, the subsequent spontaneous falling down of the sternum and ribs without effort, become still more manifest. In peripneumonia notha, the countenance is deeply suffused or livid; expiration, as well as inspiration, is performed with great muscular effort; at the commencement of inspiration, the bottom of the sternum is sometimes drawn forcibly inwards, and the abdomen is protruded.

4. June 13th, 1815.—William Greaves, aged 32, a boatman. Has been affected with dyspnœa, aggravated at different periods, during twelve years. His complaints always became worse in foggy weather, and in winter. Nine weeks ago he

first observed a tumour in the epigastre. The countenance is sanguineous; there is a little œdema of the left eyelid, and a slight lividity of the lips. He sits at present on the bed very erect, and supports himself by placing and pressing the hands firmly on the bed on each side of him. Respiration is performed by the chest alone: in inspiration, the sterno-mastoid muscles act forcibly, the intercostals are drawn inwards, the sternum and ribs are drawn upwards; there is some rattling in expiration. The sternum is very protuberant. In the epigastric, umbilical, left hypochondriac, and epicolical regions, an extensive, hard tumour, unequal on its surface, is observed on examination; there is some fluctuation in the abdomen; about an inch of fluid is pressed through, before the hand arrives at the tumour mentioned. The legs are œdematous. June 25th. There is a slight lividity of the lips, and a venous colour of the cheeks, with an expression of anxiety and distress. He can lie on the left side only. In the day he sits up. He has requested that a chair might be given him, and he sits constantly with the arms and chin placed on the top of its back part. When he does not use the chair, he supports himself by placing his hands on the bed, rather behind him; leans backwards, with the head also drawn backwards, and the shoulders raised, but otherwise quite erect, —notwithstanding much debility and a degree of emaciation. The sternum is more protuberant and higher than natural; the clavicles are drawn parallel to the horizon. Inspiration is performed by a strong effort of all the muscles which conduce to this effect; the chest falls down spontaneously in expiration. Respiration is performed principally by the chest. He experiences long fits of coughing, by which a copious viscid expectoration is raised. On dissection, adhesions and effusion were found on both sides of the chest; and the liver was enlarged by the tubera diffusa.

Having detailed the appearances in four cases of hydrothorax, to which it would be easy for the author to add a greater number, this paper may be properly concluded by stating a summary of the characteristic appearances in this disease. The posture is peculiar. The patient sits upright, or leans backwards, and supports himself by placing the hands on his knees, on each side, or backwards, on the bed. The shoulders are thus much raised, and become fixed points, from which the auxiliary muscles of respiration act, to elevate the chest. It is interesting to observe, from time to time, how naturally and how constantly this position is assumed; and how certainly it is reassumed, if the patient be made to change it purposely for the trial. If the patient lies down, the shoulders and head are much raised by pillows. In one of the cases mentioned, the patient begged a chair, on which, as has been stated, he leaned, and fixed the arms, elbows, and chin, without variation, stating his complaints to be mitigated in the erect posture in general, and still more in that just described. In an aggravated case, which has not been given, the patient, a female about 50, was at length incapable of lying in bed, or of assuming any other position than the following. She sat, day and night, in an arm chair, fixed the elbows firmly on the arms, and the forehead on the back of another chair, placed immediately before her. Cushions were placed along the arms of the first, and on the back of the second chair, to prevent the pressure which was made against them from hurting the elbows or the forehead; all at the patient's own suggestion. Thus the mastoid processes, and the scapulæ, became fixed points, amongst others, from which the auxiliary muscles of respiration were allowed to act. The respiration is not less peculiar than the posture. Every effort is made to raise the sternum and the ribs, and so to enlarge the capacity of the chest. This effort is made in inspiration only; expiration is easy, but, at its termination, often attended with a rattling noise. In long continued cases, the chest becomes permanently elevated; the sternum is protruded, and the chest appears high, and somewhat deformed. In cases where much fluid is effused, and the erect position assumed, the diaphragm seems to be weighed down, respiration is performed wholly by the elevation of the thorax, and the abdomen is not moved or protruded. The cough is also, in some measure, distinctive. In general, fits of coughing raise a copious, viscid, tenacious, transparent, and frothy expectoration. This repeated effort constitutes a fit of coughing, performed in general during one expiration; it is attended with a rattling noise; the countenance is pale, and phlegmatic; the cheeks generally not flushed, and the lips are of a pale lilac colour. The pulse is various, but when the patient is tranquil, it is frequently regular; the sleep, in simple hydrothorax, is not disturbed by dreaming; there is thirst; the urine is scanty; and the bowels generally costive.

IV.

Case of Morbus Cæruleus arising from Ulceration of the Lungs, and accompanied with the Medullary Sarcoma of Mr Abernethy. By WILLIAM HOWISON, M. D. Member of the Royal Medical Society, &c.

I HAVE taken the liberty of presenting to the public the following remarkable case, as it not only affords an instance of Morbus Cæruleus arising from a very unusual cause, and which was detected by a very accurate and careful dissection; but from its also presenting an example of a tumour of the sarcomatous kind, under which the patient laboured at the same time; the nature and connexions of which were also explained by dissection, and which, by its pressure upon the circulating system so near to the heart, might, in a considerable degree, have aggravated the sufferings of the patient, and assisted in producing the morbus cæruleus.

A. B. ætat. 24, unmarried, was admitted as a patient into the Edinburgh Royal Infirmary, on April 10th, 1816, under the care of Dr Spens. She is very corpulent and plethoric; is short necked, broad shouldered, and has every appearance of a woman of forty years of age. Her face is full and turgid, its integuments are of a florid red colour, and have an œdematous appearance; her eyes have a dull and languid look, and are depressed, as it were, in their sockets; her shoulders are very broad; and her chest is full and prominent; her abdomen is greatly swelled, particularly below the umbilicus, and when struck, communicates an indistinct sense of fluctuation. The swelling is observed to extend a considerable way down the limbs, and they also have a puffy œdematous appearance. The integuments over different parts of her body, particularly her face, back part of her neck, breast, upper part of her abdomen, thighs, &c. are of a florid red colour, verging to purple; and dispersed over various parts there are livid dark-coloured blotches, varying in size from a sixpence to a crown piece.

Situated on the outer edge of the sternal origin of the left sterno-mastoid muscle, there is a large, hard, incompressible, somewhat irregular, and moveable tumour, extending hence along the upper margin of the clavicle, backwards nearly to the trapezius muscle, upwards to the angle of the lower jaw, and reaching anteriorly to the trachea: Its basis seems to be very extensive, and deep-seated; its investing teguments are of their natural appearance; and its presence is reported to give no impediment to the performance of respiration or of deglutition. Pulsations, synchronous with the pulse at the wrist, but obscure, are to be felt in the swelling; and the belly of the sterno-mastoid muscle seems to be involved in it.

She complains of fixed pain of breast, situated dorsal to the cartilages of the two inferior true, and superior false, ribs of the left side, accompanied with a strong irregular pulsation, and great difficulty of breathing, particularly when in the recumbent position, which is aggravated by a tickling cough, attended at times with bloody sputa, with which she is troubled, particularly during night; pulse about 80, full, and irregular; sleeps indifferently; bowels naturally costive; passes urine in natural quantity; thirst; tongue whitish towards the centre, but red towards the edges; much dyspnœa. Catamentia pro mensis quatuordecim defuerunt. Is affected at times with severe headach.

From the above mentioned period, she continued gradually to get worse, in defiance of all remedies, as blisters, mucilaginous mixtures, squills, &c. till the evening of the 16th, when she expired. For the two last days previous to her death, she could not lie in the recumbent position for any period of time, her breathing having gradually become so difficult.

As this was a very interesting case, not only on account of the general appearances and medical symptoms of the patient; but as it was also of great consequence to discover the nature and connexions of the tumour, in a surgical point of view, permission was requested to open the body, which was immediately granted, and was performed two days after her death, with great care, in presence of several of the medical gentlemen of the hospital.

Sectio Cadaveris.—The integuments covering the thorax being divided, the fat was found to be of a firm consistence, and to extend about an inch and a half in depth. The sternum being cut from the ribs, and laid back, a considerable quantity of air escaped with violence from the right cavity of the thorax. The right lung was compressed to the size of a person's hand, and upon examining its external surface, an ulcerated hole, about the size of a shilling, was discovered, near to its centre, through which the air had escaped into the cavity of the thorax, and compressed the lung. The internal substance of the lung, when cut into, presented a tuberculated appearance throughout its whole surface. The left lung was also found to be much compressed, and smaller than natural; and its internal structure presented the same tuberculated appearance, although in a much slighter degree.

The pericardium, containing the heart, was found forced entirely into the left cavity of the thorax, and was pressing upon the left lung, so as to impede, in a considerable degree, its free action. Upon laying open its cavity, there flowed from it about ℥vi. of a transparent yellowish-coloured fluid. The heart was larger than natural, much loaded with fat, and its coronary vessels were distended with blood. The right auricle was turgid with blood, partly coagulated, and partly fluid; the foramen ovale was found completely closed; both ventricles were also filled with blood; every other part of the heart, valves, &c. were found to be sound and healthy. The contents of the thorax being removed, its internal cavity appeared to be large and roomy.

From want of time previous to the funeral, the cavities of the cranium and abdomen were not opened.

Sectio Tumoris.—Upon dissecting back the surrounding integuments from the tumour, the belly of the sterno-mastoid muscle appeared greatly diminished in bulk, and the muscular fibres immediately over the tumour were almost absorbed. The sterno-hyoideus muscle was found to be in a similar condition. The superficial veins in the neighbourhood were considerably enlarged, and distended with blood. The sterno-mastoid muscle being separated from its attachment with the sternum and clavicle, and reflected upwards, the tumour appeared to consist of three masses, distinct from each other, excepting at one side, where they were slightly connected. Underneath, and stretching into the axilla, a number of enlarged glands of different sizes could be detected by the fingers. After injecting the left common carotid artery, at its origin from the aorta, with vermilion injection, its diameter was found to be considerably enlarged, but its trunk was entirely unconnected with the tumour, excepting by means of those branches which supplied it with blood, and which were considerably enlarged; cellular substance everywhere intervening betwixt it and the tumour.

Upon dividing the largest tumour into two equal halves with a clean scalpel, it was found to possess all the characters of the medullary sarcoma of Mr Abernethy.

Upon inquiring into the previous history of the above mentioned patient, we learned that she had led a very laborious and active life, from her earliest years, as a farm-servant in the country, and that she had enjoyed perfectly good health, until within these last two years, when the above mentioned symptoms commenced, and gradually continued to get worse. The tumour in her neck commenced six years ago, and, when first observed, was about the size of a horse bean, and, since that period, it has gradually continued to enlarge, but particularly within these two last years.

The cause of the livid colour of the integuments in this patient (or morbus cæruleus) appears to me to have been owing to the very imperfect circulation of blood through the lungs, and, consequently, to its having been very imperfectly supplied with oxygene from the external air during respiration. The right lung, as appeared upon dissection, was compressed to the size of a person's hand, by the quantity of air which had escaped from the ulcerated hole in its surface, and must, consequently, have been rendered almost incapable of performing its natural functions. The pressure of the air from the right cavity of the thorax upon the mediastinum, during the action of the right lung, had also forced the pericardium and heart totally into the left cavity of the thorax, and, of course, greatly diminished the functions and size of the left lung. The diseased tuberculated state of the substance of both lungs themselves must also have contributed greatly to produce the disease. The action of the heart itself and arteries, upon examination before death, appeared to be irregular, stronger and fuller at one time than at another, which might arise from the pressure retarding their free action. The pressure of the tumour upon the trunk of the left internal jugular vein, particularly when the patient was lying upon her right side in bed, might have produced the great turgescence of blood in the face, and headach.

With regard to the treatment of the tumour, in a surgical point of view, there must have been much hesitation and doubt, from the uncertainty with regard to its nature, as by some people it was supposed to be an aneurism, and its connexion with the surrounding parts, which were of such importance to the animal economy. From its immense size,—from the important situation which it occupied, imbedded among the large blood-vessels, nerves, glands, supplying the head and neck,—from the uncertainty whether or not the common carotid artery might be immersed in its substance,—from its depth,—the serious nature of the operation,—and the debilitated state of the patient's constitution,—its extirpation was delayed, and she was recommended to the physicians under whose care she eventually died. By the dissection, all these circumstances were explained; and it became evident, that the tumour might have been removed without risk, excepting from the extent of the wound, and the debilitated state of the patient's constitution, arising principally from the internal disease under which she at the same time laboured.

V.

Case of Wounded Bladder, terminating favourably.

By J. DOUGLAS, Surgeon, Hawick.

CAPTAIN S. was wounded at the battle of Chippawa, in Upper Canada, on the 5th of July 1814. The ball, having penetrated the left groin, over Poupart's ligament, by the side of the large blood-vessels of the thigh, fractured the anterior part of the pelvis, passed through the bladder of urine, slanting obliquely across the basin, and terminated its course beneath the integuments on the right buttock, over the ischiatic notch, from which place it was instantly extracted.

Immediately after being wounded, Captain S. was bled copiously; and the catheter was introduced to draw off the urine. This treatment afforded him a little relief. On the evening after the action, the army being ordered to retreat, he was conveyed to Fort-George, a distance of seventeen miles, in an open waggon, during the inclemency of the night, the motion of which gave him considerable uneasiness. From thence he was carried on board a small vessel, conveyed across Lake Ontario, and landed at York on the evening of the fourth night after he received his injury; when, for the first time, he was committed to my care. When I entered his chamber, I found him stretched upon a hair mattress, his countenance pale and anxious, pulse quick, respiration hurried, and the urine, tinged with blood, flowing freely from the groin. The wound in the buttock, from which the ball had been extracted by a simple incision, looked clean and healthy. On the contrary, the wound in the groin appeared sloughy and inflamed, and the discharge from it was fetid and offensive. He made frequent attempts to void his urine by the natural passage; but, after the most painful and convulsive efforts, he could not effect it. He requested of me to introduce the catheter, for he had obtained considerable relief by that operation at a former period. On attempting to pass it, he felt severe spasms in the perinæum, and I was obliged to desist, having had the mortification of adding much to his sufferings by my interference. I directed an enema to be given, and an opiate to be taken at bed-time. On the following morning, when I visited him, a longitudinal piece of bone, nearly an inch in length, and about the thickness of a crow's quill, presented itself at the urethra, which I immediately extracted. He had spent a restless night; but the expulsion of this foreign body gave him a good deal of relief. For three weeks following he appeared nearly in the same state, only the wound in the groin looked more clean and healthy, from having its slough detached. However, he could now pass a few drops of urine by the natural passage, but in accomplishing this he felt most severe pain. The discharge of pus and urine was also copious, and extremely fetid, so that it was difficult to remain in the apartment for any length of time. The posterior wound now began to inflame and suppurate. A piece of cloth was discharged, and the urine flowed through both openings. At this time also another piece of bone was passed by the urethra, which, when pressed between the fingers, mouldered down like a piece of earthy matter. About a fortnight after this period, the season became extremely hot, and the wound in the groin was over-run with maggots, which for a short time increased the suffering of my patient much, and really seemed to concentrate in one individual the highest degree of human misery. They were, however, soon destroyed by an injection of brandy and water. After this period the wounds began to contract, and to be filled up with healthy granulations, while the functions of the bladder gradually resumed their office. The final closure of the wounds was much retarded by frequent attacks of intermittent fever, which, indeed, had proved fatal to a number of the wounded in hospital. Fowler's solution of arsenic was administered, as it was found most efficacious in putting a termination to the paroxysms of the fever. After having suffered much by three or four relapses of fever, my patient was ordered to the lower province of Canada, for a change of air and climate. He accordingly sailed on the 24th November from York, with his wounds completely closed, a period about three months and a half after they were first inflicted. On his arrival in the lower province, he was attacked with fever in the continued form, which was also attended with catarrhal symptoms. From the exertion of coughing, the wound in the groin was forced open, and the urine was again discharged. The fever abated in the space of eight or nine days; and in six weeks afterwards the wound in the groin was finally healed.

Remarks.—This wound, from its particular situation, excited a great deal of medical regard; for every surgeon who saw Captain S. despaired of his recovery. This case being complicated with splinters of bone, was one evidently not suited to the introduction of the elastic gum catheter, which has been found so useful in wounds of the bladder. The longitudinal piece of bone appeared to be a splinter from the anterior brim of the pelvis, and it was surely most surprising how it could find its way into a passage so narrow as the urethra. The exit of urine by the posterior wound had been prevented at first by the piece of pantaloon, which was afterwards discharged by suppuration.

Captain S. is now in England, and, since my arrival from America, I have had an opportunity of seeing him. The present statement with regard to his wound is as follows.

The left limb is smaller than the right, and appears shorter when he walks or stands erect. He can walk a distance of three miles without resting, but is not able to ride on horseback, from a tingling sensation like the pricking of pins in the perinæum, and which extends itself down the inside of the left leg. When he voids his urine, he stoops a good deal forward, presses in the abdominal muscles with his hands, in order to facilitate its expulsion. He feels at times a pain in his groin, especially in cold or damp weather, and complains of much debility about the lumbar region. His bladder is not irritable, for he can contain his urine almost for any length of time. His urine, upon standing, deposits a thick sediment of a lateritious colour, but there is no appearance of pus in it. He has become rather corpulent, probably owing to his not being able to take his usual exercise.

Hawick, 1*st November* 1816.

VI.

History of a Case of Dislocation of the Lower Jaw; with Remarks on the Sentence of a Court-Martial held to investigate the Nature of the Causes that produced it. By JOHN FORBES, Esq. Surgeon, Royal Navy.

IN the month of January 1815, Captain J. T. of his Majesty's sloop M. was tried by a Court-martial at Barbadoes, on charges of cruelty and oppression preferred against him by Sir

Philip Durham, Commander in Chief on the leeward Island station. The first charge stated, that 'Thomas Payne, belonging to his Majesty's sloop M. had suffered a dislocation of the jaw, from the severe punishment of gagging, inflicted on him on board, by direction of J. T. Esq. the commander of the said sloop, on or about the 23d of last May (1814.)' The existence of a complete dislocation having been proved by the testimony of two medical men, the Court proceeded to investigate the circumstances connected with its occurrence; and, from the evidence adduced on both sides, the following seem to have been as well established as the law requires.

1. The great degree of intoxication under which Payne laboured on the night of the 23d May, previously to his being gagged.

2. The gagging by the captain's order; who moreover gave, it was stated, particular directions that care should be taken that the gag were small, and that no injury might happen to the man from the operation.

3. The pieces of wood with which Payne was successively gagged were of fir, about six or seven inches long, and of the thickness of the finger or thumb.

4. The *mildness* with which the operation was performed.

5. Payne bit through one or more pieces of wood successively introduced. One witness stated, that, when he had bitten through the third piece, he appeared to have hurt himself in so doing, as he cried out, 'I am jaw-locked! I am jaw-locked!' Another evidence testified to the fact of his having complained of his jaw being hurt upon biting through one of the pieces of wood. It did not appear that any other piece of wood or other substance was introduced after the destruction of this third piece. One man stated that he was ordered 'to get the *pump-bolt*, and gag him with that,' but that, while he was looking for it, Payne was otherwise disposed of.

6. The statement of the opinion of several witnesses who had assisted at or seen the gagging, that the dislocation was caused by the act of biting the gag-stick through, and would not have occurred without this act on the part of Payne.

7. One witness, in reply to a question of the Court, gave it as his opinion that the gag-stick was not *deep in the mouth*, else Payne would not have had power to bite it through.

8. The surgeon of the sloop's testimony to the existence of a complete dislocation immediately after the gagging.

9. The surgeon's testimony to the following facts—The reduction by him of the dislocation on the night of its occurrence;—his opinion of the jaw being then rendered as effective as be-

fore the injury;—his having discovered next day, or the day after, that the jaw was again in a state of dislocation, from what cause he could not distinctly say;—his repeated and ineffectual subsequent attempts to reduce the dislocation.

10. The fact of Payne's jaw having been *out twice before* this time, and of his having replaced it himself, stated by the man himself in the following words.—'Court. How often has your jaw been dislocated before the present circumstance?'—Ans. 'Once on board the Amphion frigate; it *catched* the second time while I was opening my mouth, and went in again without any assistance, on board the Belleisle.'

11. The greater facility of dislocating a jaw that had previously been dislocated, testified by two medical men.

These, I think, are the whole of the circumstances connected with the production of the injury of Payne's jaw, as well as the opinions respecting its nature and cause, which were delivered in the evidence before the Court. On these, of course, the decision was grounded. It was in the following words.—'The Court is of opinion, that the dislocation of Thomas Payne's jaw was occasioned by his own violence in biting the piece of wood through, and by a facility which he had of putting his jaw out and in himself, and not from the severe punishment of gagging.'

The other charge not having been proved, the prisoner was accordingly 'most fully acquitted.' Shortly after the trial, the unfortunate Thomas Payne returned to England in the Mosquito, and I am entirely unacquainted with his subsequent history and fortunes.

Before proceeding to state some remarks which I propose to offer on the causes alleged by the Court to have produced the dislocation of Payne's jaw, it may be interesting to give some account of the condition to which his injury had reduced this unfortunate man, and also of the mode of punishment of which it was a consequence.

The long existence of this dislocation, in the present instance, was not necessary to prove the falsity of the strange assertion of Hippocrates respecting the fatality of an unreduced lower jaw. It is not, however, too much to affirm, that the continuance of this derangement will, in all probability, shorten the life of the sufferer. To be convinced how certainly it must ever render him an object of commiseration, it is scarcely necessary to peruse the following detail.

The dislocation, at the time of the trial, that is, about eight months after its occurrence, was complete; the coronoid processes of the lower jaw could be distinctly felt filling the naturally hollow place in the cheek below the zygomatic arch, while the absence of the neck of the bone before the ear was very perceptible. The lower jaw was projected to a considerable distance before and below the upper; and, owing to the position of the condyles under the arch of the cheek, no part of it could be made to touch the upper, except the backmost grinders. To effect this, even considerable pressure was necessary on the under jaw. Of course, the power of mastication was totally lost; unless, indeed, we call by this name the power which was still permitted, by the very slight ginglymous motion remaining, —of bruising any soft body between the posterior molares. The hand was reduced to the necessity of performing this vicarious office; and, ever since the production of the injury, the first and longest part of this poor man's meal-time has been occupied in mincing and bruising his food, with his knife and fingers, previously to his swallowing it. Not to mention the loss of the animal gratification received during the process of mastication, there is no doubt but the digestive powers must suffer from the absence of the proper and natural quantity of saliva, as well as from the imperfect comminution of the food necessarily resulting from the want of this process. Accordingly, it was remarked by the surgeon of the brig, that this man had become much thinner since the dislocation, and that he had grown subject to derangements of the intestinal canal;—events which may with much probability be attributed to the unnatural manner in which he is nourished. *

The distortion and disfigurement of countenance produced by this injury are very great, disgusting, and humiliating. The constantly open mouth, and dribbling of saliva from the depending jaw, convey the impression of idiotism; and this impression is perhaps heightened by the unnatural length of visage and projecting chin consequent on the morbid position of the lower jaw-bone.

Thomas Payne may be said to have lost articulate speech; for, although he certainly can speak, and much better even than could have been expected *a priori*,—yet, when the relative position of the jaws and lips is considered, it will readily be understood how very imperfect his articulation must be. His teeth are all encrusted with tartar and sordes for want of use,—like the stones of an unfrequented street half-hid in ill-placed vegetation. He complains of a constant though slight pain in the place of the condyles; and this pain becomes severe when the jaw is attempted to be forcibly closed, or the bone moved from its unnatural position. He particularly complains of the great sense of uneasiness he experiences from the *dryness* and *coldness* of the mouth, evidently arising from the constant evaporation of the fluids from that cavity, thus unnaturally and constantly subjected to the action of the external air. These uneasy feelings appear to be peculiarly severe during the night and frequently prevent sleep. *

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* Similar effects, I find, were observed by Professor Thomson, in cases of injury of the salivary organs from wound. See his Observations on the Belgian Hospitals.

After this detail, it is unnecessary to mention how many of the situations of life, he might otherwise be fit for, this man is rendered by this injury incapable of filling.

The operation, *during* the performance of which at least Payne's jaw was dislocated, and which, however it may be sanctioned by the 'sterner customs of the olden time,' is now very rarely had recourse to in the modern discipline of our navy. *Gagging*, I have seen performed in the following manner. A piece of wood or iron, † various in diameter and length, is introduced into the mouth,—exactly in the way *the bit* is introduced into the mouth of a horse,—so that a portion of it shall project from each side. It is retained in this position by means of a cord passed over the projecting extremities, and behind the head. As this operation is never had recourse to, but in cases where the culprit is not merely clamorous, but capable of uttering articulate speech, (for a gagged man can make a noise),—to ensure the object of its employment, it is obvious that the instrument, particularly if of small diameter, must be forced deep in the angle of the mouth; as any person may easily ascertain, by experiment on himself, that, if not deep in the mouth, it will still leave the power of articulation. As the operation is one also which is seldom proposed, but when gentler means have failed to procure a cessation of outrageous conduct, it will naturally be concluded, that it is one which is never voluntarily submitted to. Against the drunk man's efforts, accordingly, to keep his mouth shut, considerable force must generally be employed before the business can be properly accomplished.

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* This was the case in the warm climate of the West Indies. It would be interesting to know the condition of these circumstances in this country;—the degree of approximation in the results, to wit, in the one case, of the action of a warm air and consequent quick evaporation; and, in the other, of a cold air, and consequent proportionally slow evaporation.

† A witness on the present trial stated, that he had usually seen 'the pump-bolt,' the iron bolt on which the handle of the ship's pump works,—'bayonet and drumstick,' used for this purpose.

In fully acquitting Captain T. of all criminality in the case of this man, the Court doubtlessly proceeded upon the following grounds:

1. By the articles of war, Payne merited punishment.

2. By the same articles a discretionary power is left with captains to punish criminals 'according to the *customs* in such cases used at sea.'

3. Gagging is 'a custom in such cases used at sea.'*

4. Therefore, in *directing* this punishment, no criminality can attach to Captain T.

And if it be asserted, that the law which sanctions the gagging, sanctions this simply, and condemns as criminal any permanent injury inflicted on the culprit, by or through this mode of punishment, the Court, in acquitting Captain T. of criminality in the *performance* of this punishment, (which at first sight seems certainly to attach inevitably to him), in all probability conceived themselves fully borne out by the following considerations.

1. The precautions to be observed in performing the operation, directed by Captain T., prove that he had no intention of permanently injuring the man.

2. The punishment *was performed* (according to the evidence adduced) with these precautions, and with more than usual mildness.

3. But thus performed, or even more rudely, this punishment is not, and has not been, found to cause dislocation of the jaw.

4. Therefore dislocation, in the present case, must be attributed to some circumstance or circumstances foreign to, or at least not necessarily arising from, the operation; and, consequently, cannot be considered as an event for which the person directing or performing the operation ought to be made responsible.

The legitimacy of this deduction I do not intend to call in question: nor, when I consider the letter of the law which guided the proceedings of the judges; the nature of the evidence brought before them; and, finally, the undoubted predisposition or tendency to the dislocation which existed in

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* We have already observed, that this *custom* is now happily one of those much more frequently honoured in the breach than the observance. Yet it is one;—and, unfortunately, there are still among us some few whose interest at least—if not whose pleasure it is—to be able, from the oblivion of antient practice, 'revocare leges amaras.'

Payne;—do I see how they could have done otherwise than pronounce the acquittal of Captain T. Of the justice of their sentence, therefore, as far as regards the acquittal of the prisoner, (admitting the truth of the evidence brought before them), I can entertain no doubt. And if they had simply pronounced this acquittal on the grounds above stated, I should have then had as little cause, as I have now inclination, to animadvert on their decision. But in acquitting Captain T. they have condemned Thomas Payne. By their decision they have not only deprived him of all claim of reparation against the person who was certainly the indirect cause of his misfortune, but they have done what they could to deprive him of that reparation which I conceive to be certainly due from a just government to the innocent victim of its imperfect laws.* The causes of the dislocation assigned by the Court necessarily resolve themselves into the *misfortune* or *crime* of the sufferer; and if these causes are true ones, and truly stated,—thoughtless of redress or reparation, all that we can feel in contemplating the miseries to which he is condemned, is sorrow for the inflictions of nature, or pity for the too dreadful consequences of erring passion. In the following pages we propose examining whether or not these causes are the true ones, and if these be the only legitimate feelings which the contemplation of his miseries excites.

In the first place, it is stated in the sentence of the Court, that Thomas Payne 'had a facility of putting his jaw out and in himself;' in other words, 'that he possessed the power of dislocating and replacing his lower jaw at will, with facility, and unassisted by any other person.' This statement of an alleged fact must, of course, be admitted as correct, provided sufficient evidence of its truth can be adduced; but some part of it is so repugnant to physiological science and surgical experience, that nothing short of such evidence will obtain for it the credence of a medical man. I particularly allude to the alleged power of reduction of a dislocated jaw by the patient himself. In our remarks on this point, we shall inquire, *First*, into the possibility or probability of a man possessing the power of reducing his own jaw; and, *secondly*, admitting its possibility, whether the Court was justified, from the evidence brought before it, in stating this power to have been possessed by Thomas Payne.

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* Here I beg not to be misunderstood as insinuating the existence of any *intentional* injury on the part of the Court towards Payne. I have the most perfect conviction of the contrary; and if it should appear, from any observations here made, that they really did unjustly injure the man,—there can be no doubt that they acted from imperfect knowledge, and not malice.

1*st*, That a man may possess a power or *facility of putting the jaw out*, we cannot doubt; as we know that almost all the corporeal injuries, which are ordinarily the consequence of accidental occurrences, may, in reality, be induced by means intentionally procured by the patient himself: and, indeed, we know that this facility *is* actually possessed by those unfortunate people whose jaws, from original peculiarity of structure, previous derangements, or other causes, are liable to be dislocated by yawning, laughing, &c.; as it is obvious, that such persons may voluntarily induce those states which cause the displacement. But that, after the dislocation has taken place,* any person (the muscles of whose jaw are not entirely powerless) should possess the power, much less the 'facility' of returning the bone to its proper place, appears to me not only incredible, but absolutely impossible. And in the case of a subject, such as Payne, in whom the muscles are not paralytic, and in whom the displacement is perfect, I have little doubt but that, in this opinion, I will be joined by every surgeon who considers the natural and morbid anatomy of the parts concerned in the dislocation,—the position of the condyles, in the state of displacement, up under the zygomatic arch,—the action exerted on the displaced bone by the temporal, masseter, and internal pterygoid muscles; and who recollects the efforts he has had occasion to make, or has seen others make, in the reduction of this very bone.

2*d*, Respecting the proofs on which the Court ventured to assert a circumstance as a fact, which, after the observations just made, I cannot help considering as so extremely improbable,—for all that is material of these, I refer to the short evidence of Payne, as stated at the commencement of this paper.† This brief and uncircumstantial account contains all the information respecting the previous derangement of this man's jaw, which was laid before the Court. Several witnesses, indeed, and among others the surgeon of the sloop, in reply to questions of the Court, stated the previous and unassisted reduction of the jaw; but they all stated the circumstance as briefly and indeterminately as he did; they all became acquainted with it through his casual and uncatechized communications merely. No questions were put by any of the members of the Court, to him or them, respecting the resemblance of those former dislocations to the present; nor respecting the means he had used to restore the bone to its proper place. To men unacquainted with physical science, it was, perhaps, perfectly natural that this evidence, however defective in quantity or kind, should appear perfectly conclusive, and demonstrative of the fact; particularly coming, as it did, from the sufferer himself, who might naturally be supposed to be interested in the suppression of a circumstance, which, more than any thing, tended to acquit the prisoner. Accordingly no further explanation was demanded of the man,—no medical opinion respecting the probability of the alleged fact was sought;—it was received, believed, and has been promulgated as true.

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* By *dislocation* of the lower jaw, I mean, throughout this paper, what is called by some surgeons, *a complete dislocation*, such as existed in the case of Payne at the time of the trial; and this is the meaning undoubtedly understood by the Court in its sentence.

† See p. 317.

And yet, that Payne's jaw had previously been dislocated, (in the sense in which the Court understood this word), or, at least, that, having been dislocated, he had himself replaced it, I think is not only not proved, but absolutely false. And this will be the more easily admitted, from the circumstance I proceed to notice.

When this man first presented himself before me on board the flag-ship, and requested my interference to procure his discharge from the service (the circumstance which gave rise to the Court-martial), he stated to me also, on inquiry, that his jaw had been *out* before, and that he had put it in himself. Surprised at this, I asked him in what manner he had put his jaw in, and was informed that it was by pressing the chin forcibly upwards with his hand placed under:—at the same time he imitated the action. Well knowing that this manœuvre could never reduce such a dislocation as he then laboured under, I inquired as to the nature of the former derangements, and was informed, that, when his jaw had formerly been *out*, he was aware of it merely from the circumstance of his mouth remaining wide open, and of his being unable to shut it without the aid of the hand placed under the lower jaw and pressing upwards. By this statement, of which we can have no reason to doubt the truth, as it is in itself extremely probable, and does not in the least contradict that made before the Court, we are at once made acquainted with the real nature of the accident from which Payne's jaw had twice suffered, previously to the present dislocation; and all the apparent absurdity and contradiction in his evidence relative to these accidents, explained and removed. From original and unusual laxity of the ligaments of the joints, peculiarity of bony structure, or some other cause, it is obvious that the condyles, in these instances of supposed dislocation, had been carried out of the depth of the fossa upon the upper and anterior edge of the surrounding prominence, but no further. In this position of the condyles, and consequent direction of the neck and ramus of the bone, the lever, by which the temporal masseter, and internal pterygoid muscles act in moving the jaw on the axis of its condyles, was almost destroyed; it was so far destroyed, that the muscles could not overcome that additional resistance to the return of the condyles to their place, afforded by the edge of the prominence on which they rested. By the depression of the bone, a few minutes of a degree more, this lever would, most probably, have been entirely lost, and the contraction of the muscles would have forced, with a jerk, the condyles from their resting place, and thus, drawing them up under the zygomatic arch, have produced a real dislocation, such as took place during the operation of the 23d of May, such as still exists in the person of Thomas Payne.*

From the above detail we are entitled to conclude, that the Court, in stating in their sentence that Thomas Payne possessed ‘ a facility of putting his jaw out and in himself,’ are neither supported by reasoning nor by fact: On the contrary, I think it is now sufficiently evident, that, in truth, his jaw had never been dislocated, previously to the 23d May. That previously to this time, that man's jaw was unusually weak, and consequently that it could be dislocated with more facility than the jaws of most other men, I think cannot be doubted; and had the Court taken the precaution to investigate the nature of these previous derangements, and been contented with deducing from these a *predisposition* or *facility to dislocation*, they would have had, as already observed, an equal justification for their sentence of acquittal, and would have moreover avoided the very serious error, into which I conceive they have fallen, of throwing, what I fear will be found to be, an unsurmountable impediment in the way of this poor man's obtaining some reparation for his grievous, and certainly most unmerited misfortune.

The notice of this apprehended incorrectness in the sentence of the Court, may be useful in another point of view. *In the first place*, it forcibly points out the errors that judges must be wer liable to commit, in forming decisions, from their own udgment alone, on matters connected with, or depending on, circumstances purely medical; and thus it points out the necessity and importance of medical jurisprudence. I think it will scarcely be doubted that, had any medical man been consulted on the circumstance in question, such an assertion could never have appeared in the sentence of the Court. In the second place, it may be useful to notice it, with the view of preventing it being hereafter quoted as a fact or precedent, either in law or medicine, which, as being contained in one of the gravest, and most trustworthy of public documents, it is very liable to be. And its notice on the present occasion becomes the more imperious, as I know it was whispered about, although not directly stated in Court, that Thomas Payne could, even at the period of Captain T.'s trial, replace his jaw if he pleased; and that he kept it out merely from the desire of revenge or interest, thereby hoping either to injure his Captain, or procure his own discharge from the service, or both. I am far from thinking that such a false insinuation, although it must be allowed that some colour for a suspicion of collusion on the part of Payne was afforded by the evidence of the surgeon of the brig, either did or could influence the Court on the present occasion; yet it cannot be denied that the entertainment of the possibility of such a thing, as this 'facility of putting a jaw out and in' at pleasure, might, on other similar occasions, materially affect the justice of judicial proceedings. And this circumstance is more likely to occur in the Navy, than in other situations. For there, officers are so much accustomed to see diseases and corporeal injuries feigned or formed, with the view of producing discharge from the service, that suspicion and scepticism as to the reality and legitimacy of morbid affections prevail to a degree elsewhere little known, and which, on occasions like the present, might operate with most unfortunate effect.

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* That this latter injury—complete dislocation—was the one which the members of the Court believed to have happened to this man on former occasions, I have the most perfect assurance. And indeed, setting aside other means of information on this point, it is evident, from the whole tenor of their proceedings, that they never entertained any doubt on the subject.

In the second place, it is stated in the sentence of the Court, 'that the dislocation of Thomas Payne's jaw was occasioned by his own violence in biting the piece of wood through.' Before entering upon the examination of the truth of this alleged cause of the injury sustained by Payne, it will be necessary to say a few words on the physiology of this species of dislocation in general. And I venture upon this with doubt and hesitation, well remembering how long I have ceased to be familiar with such inquiries, and consequently how very liable I must be to error, even in this not very difficult matter. I feel, however, pretty well assured, that, however imperfectly or unscientifically stated, the principles upon which I proceed are just and true.

1st, In the ordinary depressions of the lower jaw, as in the voluntary act of opening the mouth, while the fore part of the bone is depressed, the condyles are moved forward and downward from the depth of the fossa towards or upon its edge, formed by the root of the zygomatic process; and this motion is performed by the conjoint forces derived from the direct contraction of the external pterygoid and other depressing muscles, guided or moderated by the sluggish relaxation of the masseter, temporal, and internal pterygoid. The further progress of the condyles forward, or from the articulating cavity, is here stopped by the capsular ligament; and, in moderate depressions of the jaw, these remain rather on the wall than on the brim of the fossa, until the contraction of the elevating muscles again forces them into its depth. In this action of elevating the jaw, in other words of shutting the mouth, the muscles exert their power by means of the lever afforded by that part of the bone which is posterior to the insertion of their fibres. In these cases the line in which the muscles act, of course, always forms an angle of a certain extent with the line of the lever; and the greater the angle formed by these two, it is obvious the more power will the elevating muscles possess, both in moving the jaw upwards on the axis of its condyles, and in pressing these down into the depth of their articulating cavity. When the bone is very much depressed, as in the case of yawning or laughing, the condyles advance still further forward upon the anterior edge of the wall of the fossa; not so far, however, but that, in well formed joints, the combined powers of the resistance of the capsule and contraction of the muscles, are sufficient to restore them to their place. In these cases there still exists an angle of some extent formed by the elevating power and the lever acted on. And it is only when this angle is entirely or nearly destroyed, when the line of muscular traction becomes almost parallel with that of the ramus and neck of the bone, that the muscles by contracting, instead of moving the lower jaw upon the axis of its condyles, draw the neck of the bone upwards under the zygomatic arch, in the direction of the line in which they themselves contract.

From this it is obvious, that nothing is wanting in any case to produce dislocation, but the depression of the jaw so far as to render the neck of the bone parallel, or nearly parallel, with the fibres of the elevating muscles. And, supposing the axis on which the condyles move were a fixed point, this degree of depression, it is evident, could always be produced by a proper degree of force which acted only on the fore part of the jaw.

But as the condyles are themselves moveable, and, consequently, the axis on which the bone moves, it follows that, in identifying the line of muscular traction and the line of the lever, the motion of the condyles forward will be equivalent to the motion of the fore part of the jaw, downward and backward,—and more than equivalent, in as much as the distance from the centre of motion is less in the former than in the latter case. Hence, in cases where the capsular ligament is unusually lax, or the fossa unusually shallow, a lesser degree of depression, or, at least, a lesser degree of depressing power, will assimilate or approximate the lines of which we have been speaking, and thus more readily cause a dislocation, than in cases wherein these peculiarities do not exist.

After this exposition of the principles on which dislocation of the jaw is produced,—if, indeed, the matter has been rendered clearer by the explanation attempted, which I myself am disposed to doubt,—it is unnecessary to take any notice of the causes which usually produce it. It is evident that they all presuppose or involve, as a condition necessary to their operation, the depression of the jaw to a certain extent. Indeed (always excepting the fracture or destruction of the jaw) the only possible case that occurs to me in which this bone could be dislocated upon other principles, is that of a blow from some small-pointed body, falling upon or above the angle of the jaw, in a direction from behind and downwards. A strong impulse in this direction might, when the mouth was not widely open, force the condyles from their place, and produce a true dislocation. This latter species of cause certainly was not applied in the case of Thomas Payne; therefore, if the foregoing principles are true, in him the dislocation must have proceeded from some of those causes that act by depressing primarily the fore part of the bone.

We now proceed to inquire how far the cause assigned by the Court of this dislocation,—viz. *the act of biting the gag-stick through*,—accords with this conclusion.

From the physiology of the dislocation of the lower jaw, noticed above, I think it is certain that the *act of biting*,—that is, the contraction of the temporal masseter and internal pterygoid muscles,—can tend to the production of this displacement *only then*, when, by the depression of the bone to a certain extent, the line of muscular traction has been already approximated to that of the lever formed by the ramus and neck of the bone. When this approximation has been produced, and still more particularly when it is *preserved*, by the intervention of a solid body between the upper and lower jaws, and anterior to the insertion of the elevators, I think there can be no doubt that the contraction of the muscles, in other words, *the act of biting*, will tend powerfully to the dislocation of the bone. But it is obvious, from the anatomy of the parts, that the degree of depression necessary to produce this degree of approximation must be very considerable, even in cases where there is an unusual proclivity to displacement; that it, perhaps, can never be less (except in very peculiar instances) than that produced in the act of full and unconstrained yawning. In individuals predisposed to this accident,—that is, in whom it had previously occurred,—we find that it only takes place when the jaw is much depressed, as in laughing, yawning, &c.; therefore, even admitting, that, in cases of this kind, the presence of a solid body in the mouth, and the act of biting it, will have considerable effect in facilitating the dislocation, still it will be evident, I conceive, that the degree of depression at which the muscles employed in biting can assist the dislocation, must, even in these cases, be very little less than that produced by the acts of yawning, laughing, or whatever the causes may be, which, of themselves, occasion the dislocation in question.

We have already seen that the predisposition to this displacement in Thomas Payne, though certainly present, existed, comparatively speaking, in no very great degree: only twice in his lifetime (as far as we can learn) had he suffered a very partial derangement of the parts in which it takes place: of course, neither yawning, laughing, nor any such causes, were able of themselves to produce it. In him, therefore, I should conceive, that all the additional power of facilitating dislocation, which we have allowed to exist under certain circumstances in *the act of biting a hard body*, would be insufficient to effect the dislocation, *unless the jaw were retained by this body at a degree of depression equal to that above mentioned, as existing in the acts of yawning, laughing, and such like.*

If this reasoning be correct, how are we to explain the statements of Captain T.'s witnesses, as detailed in the beginning of this paper, viz. that the pieces of wood introduced into Payne's mouth, the biting of which is recorded in the sentence of the Court as being the cause of the dislocation, were of the diameter only of the finger or thumb?

2*d*, But, even *admitting* that the *biting of* a piece of wood of a *less* diameter than that we have above considered necessary to effect the proper degree of depression, *could produce the dislocation*, still we are of opinion that the same act which *bites the* *wood through* could not dislocate the bone; in other words, that the dislocation could not take place during the time in which the wood is in the act of being bitten through—and on this account: After the details already given, it will be admitted that the greater the angle which the lower jaw forms with the upper —in other words, the more widely the mouth is opened,—the more readily will the condyles slip from their articulation; and, consequently, by so much as this angle is decreased, by as much will the facility of luxation be diminished. But as the process of *biting through* any substance is performed by the approximation of the jaws, it follows that the facility of luxation is rendered less every instant of time that intervenes between that instant in which the teeth of both jaws, by the contraction of the muscles, are brought into contact with the superficies of the morsel to be bitten, and that instant in which they meet in its centre. Hence it should follow, that if, in the act of biting, dislocation do take place, it ought to take place when the act begins, that is, when the jaw is at its greatest degree of depression, and not when it ceases or has been completed, that is, when the jaw is at its least degree of depression. And if we admit that it takes place when the jaw is in the former position, we must also admit that, in this case, the piece of wood cannot at the same time be bitten through, because, at the very instant the condyles are forced from their socket up under the zygomatic arch, at that very instant the *power of biting* is lost. On the other hand, if we admit that dislocation takes place when the jaw is in the latter position, we must admit that dislocation can occur when the jaws are nearly, or altogether, in contact; for, as has been already observed, the cessation of the act of *biting through* any thing, is equivalent to the near approximation of the teeth of both jaws. But how shall we reconcile these conclusions with the evidence adduced before the Court in the case of Thomas Payne, which, if true, proves that *his jaw was dislocated in the act of biting through a piece of fir of the diameter of the finger or thumb?* They are evidently irreconcileable; and, consequently, either that evidence or our conclusions must be false. Which of these two shall be deemed so, I leave to be decided by others. I cannot, however, forbear remarking, that it is somewhat singular, that, of the many other circumstances necessarily attending the operation of gagging, many of which are admirably calculated to produce the dislocation in question, the *onus* should have fallen on one so ill calculated to bear it. It is, moreover, remarkable, that, considering the resistance which the man opposed to the introduction of the gag, and at the same time considering the weakness of the jaw which he really possessed,—I say it is remarkable, that the force necessarily used in the performance of the operation did not produce such a depression of the jaw as to cause the dislocation. But, had it taken place at this time, it is obvious that he never could have bitten the gag-stick through. If, then, we believe that he did bite this through, and if we admit the truth of the reasoning given above, we must conclude that the jaw was dislocated at some period *after* the demolition of the piece or pieces of wood.

A question here naturally occurs,—After the destruction of the last gag of fir, was another of a different kind and size introduced? This question was not put to any of the witnesses, and, as has been already remarked, the general tenor of the evidence inclines to the belief that no other was had recourse to. Yet the difficulty of otherwise accounting for the dislocation obtrudes upon the mind the probability of this. Was the iron pump-bolt, which one witness acknowledged he was sent for, really made use of after the wooden gags had been demolished? Did the operators, irritated by the man's obstinacy and violence, use more force and less caution in the introduction of the last gag, and thus depress the bone to the angle of luxation? Or, was the instrument itself of a sufficient diameter to produce this when aided by the undiminished violence of the man in biting it?

Before concluding, I may remark, in regard to the second dislocation of Payne's jaw, that there is considerable difficulty in fixing on a probable cause for its occurrence. The surgeon's evidence informs us, that, after having reduced the bone, he applied proper bandages to retain it in its place. These bandages remained on. How, then, could the jaw again get dislocated, as these must have kept the mouth shut? Did Payne secretly remove the bandage, voluntarily dislocate his jaw, and then reapply the bandage? Some part of the surgeon's evidence certainly affords grounds for entertaining a suspicion of this kind; yet, from the whole history of this man after the injury, and for many reasons which it is quite unnecessary here to state, I feel perfectly assured of Payne's innocence in this particular. Had there been no medical evidence delivered on this case, or had the surgeon of the brig not positively stated the reduction to have been effected by himself, the probability of the bone never having been replaced, is that which certainly would have prevailed in the opinions of medical men:—but much of the evidence delivered on this trial strongly suggests the ancient adage —'*Le vrai n'est pas toujours le vraisemblable.*'

His Majesty's Ship Venerable,
Leeward Island Station,
1*st March* 1815.

VII.

Extract of a Letter from Mr GEORGE BIRNIE, *Assistant-Surgeon of his Majesty's Ship Antelope, dated St Christopher's, 4th January* 1817, *containing Observations on Yellow-Fever, to* JAMES ROBINSON SCOTT, F. R. S. *Surgeon, Royal Navy, &c.*

I now set myself down to give you a brief statement of the observations which I have made respecting the fever of the West Indies. We have suffered severely by it; and I have to lament the loss of two of my dearest friends, who fell early victims to its indiscriminating malignancy. My opinions concerning its origin, nature, and cure, differ in some degree from those of all the other medical men on the station; I am, therefore, induced to lay before you the result of my experience, for the benefit of your friendly inspection, and shall expect your observations thereon with the greatest anxiety.

Like every other non-tangible subject of importance, the fevers of the West Indies have engendered a vast variety of opinions. The utility and beauty of classification have given way to the rage of discovery; and every one comes forward with his little bit of a hypothesis to set the world to rights, and claim the rewards of genius. Had I not matter of greater moment to communicate, I could give you great amusement by the recital of many an absurd explanation of the nature and causes of yellow-fever. I shall here attempt to disprove all the great positions of Mr Pym. His own words, the authorities he quotes, and the result of my own experience, have led me to a very different conclusion from that which he has adopted; but, as I am a young man, and a very young practitioner,—as my opportunities for observation have been few, and perhaps my attention slight or ill directed, it would ill become me to be dogmatical. I shall, however, with a faithful, though feeble, hand trace what I *have seen* of these diseases, endeavour to prove their individuality, and that they are generated in the West Indies, without a possibility of supposing their origin or increase to have been at all connected with contagion.

Mr Pym is the first, *as far as I know*, who has attempted to prove that the fevers of the West Indies differ with regard to their nature and origin. He divides them into three kinds, the continued bilious, the remittent bilious, and the Bulam or yellow fever. His diagnostics are, that, in the first, as the disease advances, the skin becomes of *a very deep yellow colour;* in the second, of *a deep yellow;* and in the third, of *a pale orange colour*, with the addition of a peculiar drunken appearance of the eyes. He says, that, in the first, there is never the black vomit; in the second, seldom, if ever; and in the third, always. The mere statement of these definitions demonstrate indubitably that the diseases in question are but grades of the same affection. Here the black vomit is the only characteristic symptom of Bulam fever (for the drunken appearance of the eyes takes place in fevers of every different type;) and he even allows the black vomit to appear sometimes in the remittent, though he denies it ever to take place in the continued bilious. It is a symptom universally looked on as the immediate precursor of death, and cannot be called a diagnostic. This is a brief statement of Mr Pym's doctrine; and I shall now proceed to lay before you as short and clear a view as I am able of the forms under which I have seen the endemics of this country, by which you will be enabled to judge of the argument and its utility for yourself.

Immediately after our arrival in this country, about the beginning of March last, when the inhabitants of Bridgetown were perfectly healthy, and no cases of fever on shore, at least I am certain that no one belonging to the ship had been near, or indeed had heard of, any sick person on shore, a fever, characterized by all the symptoms which Mr Pym has attributed to Bulam fever, made its appearance on board the Antelope; and, since that period, 110 cases have occurred in her, of which thirty-one only have died; of those thirty-one, nine either lived entirely in the fore and after-cockpits, or messed, and, consequently, passed the greater part of their time, there. None who had black vomit recovered; and of the thirty-one, seven only had black vomit; and of these seven, six were of the nine mentioned above as living almost entirely *below*, where the atmosphere in this country is thick and heavy, and produces a peculiar hot sensation on descending from above into it. The temperature is always about the same, is often below what it is on deck, and, from the continual burning of candles, the crowding together of several people, the debris of pantries and mess-rooms, not always exceedingly clean, together with the want of circulation of air, may have caused so great a proportional number of those who were obliged to mess or live below to die, and have black vomit. If we compare the mortality amongst them to that of the rest of the ship's company, I conceive the observation will be of infinite importance in a future stage of this investigation. The patients at first universally complained of a pain extending across the forehead, confined to a line above the eyebrows; frequently the eyes could not bear the light, and pain was always produced by slightly pressing on the eyeballs; the pulse was sometimes natural, at others full, quick, or interrupted; the skin always hot, dry, and pungent; *irritability of stomach* came on, on the first, second, or third days; the matter rejected from the stomach was indigested food or drink, bilious matter; and in several, towards the latter stage, that peculiar secretion called black vomit. We have lost fourteen officers and seventeen men by this disease; and it possessed, in an eminent degree, *all the symptoms* attributed to *Bulam fever*, particularly black vomit. Its course was from two to ten days, but generally terminated in from three to four. This is a concise account of the disease, as it appeared in the Antelope; and it was *called Bulam fever.*

In August last, a disease broke out on board the Childers brig, while anchored in the Gulf of Paria off Port Spain, Trinidad, where the squadron had gone to pass the hurricane months. As her surgeon and assistant were both attacked, I was sent to assist Mr Brown of the Scamander in taking care of the sick. At that time, twenty-eight out of ninety men were labouring under a disease, which made its appearance by the same circumscribed pain of the forehead, affection of the eyes, variable pulse, hot, dry, pungent skin, and succeeding irritability of stomach, which ushered in the disease on board the Antelope.

In the first ten days about thirty persons died; three women and two infants fell victims to it; and this was called *bilious remittent.* But the only difference which to me appeared to exist between the disease on board the Antelope, and that on board the Childers was, that, in the former, black vomit appeared in seven cases out of 110, while on board the Childers I observed it in one case only. It was, indeed, said to have existed in the cases of two of the women; but, as I was seized with the disease myself before they died, I cannot assert that they had it on my own authority, and that the disease on board the Childers was attended with a much greater mortality. But, premising that the same causes do not always produce precisely the same effects on the human body, this difference of termination may perhaps receive some elucidations from considering the following circumstances.

The disease appeared in the Antelope immediately on her arrival in the West Indies. The Childers had been nearly six months in the country when the disease broke out in her. The Antelope was in good order, clean, and well aired, with the exception of the cockpits, as already mentioned; the Childers was the opposite of all these. On board the Antelope twenty-five died who had no black vomit; on board the Childers one died who had black vomit. Can it be supposed, that the twenty-five who died in the Antelope, without having black vomit, were different from those who exhibited similar symptoms and died about the same time, but who had black vomit? I think not. When the *peculiarly circumscribed pain of the forehead*, and the great and almost unconquerable irritability of stomach, were the distinguishing and leading symptoms in every case,—because a certain appearance takes place in a limited number,—shall we call them by different names? Let us pursue the comparison still further, and we shall find that the mortality and liability to attack was equal among those who were obliged to live or mess below in the Antelope, and those who lived on the lower deck of the Childers. The lower deck of the Antelope, where the people mess, is always well aired, except in a heavy sea, which does not often occur in the West Indies, and is always kept in an exceedingly clean state, which accounts for the disease not running through the ship's company, and for its comparative manageableness; but, in the *cockpits*, every person was attacked, except two seasoned hands; about one-half died, while, in the other parts of the ship, not more than a fourteenth, viz. nine of the thirty-one who died on board her had either lived entirely or messed in the cockpits, and of the seven cases of black vomit which occurred on board, six were of those nine. The lower deck of the Childers, where the people mess, was dirty in the extreme. On lifting the hatches of the fore or after holds, a horrid suffocating stench issued from them; it was confined, lumbered with lockers, and the heat increased by the fire-place being on it. It was in a nasty filthy condition, and I do not recollect that it was attempted to ventilate it by windsails. This state of the vessel, the want of accommodation and attendance, and the sudden fall of the medical officers, accounts for the mortality on board of her, and for the disease attacking all her crew: only three escaped an attack, and *about half died.* Here we observe a remarkable coincidence between the extent and mortality of the disease in our *cockpits* and in the *Childers.*

We see the influence of the climate modified by the different situation of the two ships, and by the different situation of the parts of the same ship.

From having observed that this influence is the leading character of these diseases; that in every individual case of them the first symptom was *the circumscribed pain of the forehead,*—pain of the eyes, particularly on pressure,—that all cases were alike characterized by irritability of stomach and rejection of great quantities of bilious matter,—that six of the cases in which black vomit occurred, were placed in peculiar circumstances,—that the other was in a bilious irritable habit, and took place immediately on our arrival,—that of the thirty-one who died, nine were obliged to be almost entirely below;—I say, from having observed all the essential and cognisable symptoms to be the same in *both* these diseases (though I cannot point out exactly what combination of circumstances, or modification of causes, produced so great a number of cases in our cockpits, in which death was preceded by black vomit, and why a still more nasty state of the lower deck of the Childers so few), I am of opinion that they are essentially the same, and fear that medical observers, in the too eager pursuit of *discovery*, have been inclined to look over the thousand phenomena which establish their *identity*, and to find out and magnify the *irregularities* which occur in this, *as in every other disease.* For my own part, I grieve to see so much patient inquiry, and intelligent observation, frittered away in the futile attempt to convert classes into species, or in the insignificant invention of a new name for an old disease. As they all agree that the practice in *both* must be the same,—that this difference, if ever so well established, would lead to no practical result,—why so eagerly maintain an hypothesis, with only one useless dubious argument or fact to sustain it, and which is opposed by every character of identity and principle of classification?

The Tigris and Scamander frigates have also been visited by this dreadful scourge, but have not lost more than five or six persons each, which exemption they owe to their high state of discipline, their cleanliness and attention to ventilation, while the Brazen, under circumstances somewhat similar to those of the Childers, has lost *twenty-four* out of eighty men. I do not mean to say that she was dirty or in *bad* discipline; but her lower deck, where the people live, is narrow, crowded, and has neither ports nor scuttles, with two decks above it. The different degrees of mortality exhibited in the different ships of this little squadron, according to their different degress of *descrip-*

tion, *ventilation*, and *cleanliness*, I think sufficiently proves that all the various appearances of these diseases arise from the same origin, and are effects of the same cause, modified, as we have seen, by various circumstances.

Dr Ferguson, Inspector of Hospitals, whose experience of the climate and fevers of the West Indies has been very extensive, and entitle him to the greatest deference, has with much kindness and condescension communicated to me some facts respecting the attack of this malady, as affected by *local circumstances.* He says, 'that on the tops of the mountains, and in all elevated situations in the West Indies, the only fever known to exist is the ague or intermittent of Europe. As you descend, you find the remittent in a mild form; still lower, it appears in an aggravated type; until at last, on a level with the sea, in the crowded ill-ventilated towns, which, for commercial reasons, are almost all situated to leeward, over *the beds of dried up rivers, or swamps,* it appears with all its dreadful and destructive malignancy, rapid in its course, and accompanied with *black vomit.* It has also been observed, that, in very dry seasons, the *ague* appears lower, and that, in very wet ones, the remittent occurs in *higher* ones.' This gradation will account for these endemics prevailing in different situations according to the season; and I conceive it to be perfectly conclusive in proving their identity. Speaking of what *he calls* Bulam Fever, Mr Pym says, 'it is a disease *sui generis*,—of foreign origin, contagious, and attacking a person once only during life.' That it is the same as the bilious remittents, I think I have made sufficiently evident. With respect to its being of foreign origin, I ask, Do the same causes exist nowhere for its production but in Bulam? When it has disappeared for many years, or for months, as it did in the Antelope, where did it hide itself; and, being so fatal, how was it concealed and retained in existence? I consider the doctrine of contagion to be altogether unfounded, and eminently *mischievous;* and, that none of these fevers, allowing a difference, is contagious, I think I may assert on the most solid proofs the subject admits of. On board the Antelope, no precaution was taken to prevent contagion; yet, out of 320 men, having the freest intercourse, not more than 14 or 15 at a time were attacked. The surgeon, two assistants, and surgery man, were always among the sick; and the three last slept continually in the midst of them, and none of them had the slightest attack of fever, *for many months afterwards;* and only the two assistant surgeons, after being sent, one into the *Childers*, and the other into the *Brazen*. The officers frequently came to see the sick; their messmates were allowed to visit, wash, and dress them; yet no appearance of the fever having been ever communicated by contagion occurred. On his being attacked, I lent a pillow to one of my messmates who died eight days afterwards, having had *black vomit*, yet I slept on it for four months without any other precaution than that of *changing its case*, and without the least attack of fever during all that period. On board the Childers, where they had the fever, which my medical superiors called remittent, out of ninety men, only three escaped being attacked; and every person impelled by duty to remain for any length of time on board, was seized with the same disease. The surgeon of the Brazen sloop had been left behind, and on the brig's arrival (for she had been sent from Trinidad, that her men might be conveyed to the hospital at Barbadoes), he nobly volunteered his services, and fell a victim to his humanity. Another surgeon and three assistants sent on duty into her, had very severe attacks; and three clerks, made pursers into her, died in less than as many weeks. This *appeared* like contagion but *was not*; for none of the physicians, surgeons, assistant-surgeons, attendants, or nurses, who were continually with the men and officers after their being sent to the hospitals, were ever in the slightest degree affected with anything like this disease. That the immediate and exciting cause existed on board the brig, is evident from this relation, and from the fact, that her men were taken ill every day, until she was unloaded and cleaned out, and that the black Creoles employed in this service were also seized with the disease in a day or two *after being on board*, but that since this purgation she has had no new case of fever, and but one of relapse. I noticed above, that one third of those who died on board the Antelope, either messed below, or lived there entirely, where they were in some degree under similar circumstances with the crew of the Childers; and, I have no doubt, had those strangers who were attacked in the Childers been sent into our hold, steward-room, or cockpits, to breathe a close vitiated atmosphere, loaded with every miasm which such a state is calculated to produce, that they would have experienced some similar attack; or, had our ship's company been crowded down there, so many would not have escaped an attack, nor so many who were attacked have recovered. I think sufficient evidence is here given to prove that *these* fevers are not at all contagious. The fever in the Childers was endemic, not contagious; and it is by confounding the different ideas conveyed by these words, that many wander in a labyrinth of their own construction.

This disease is *in all cases endemic;* it is the result of the influence of climate, modified by all the circumstances which I have already mentioned, and perhaps many others; and it is the different nature of these modifying circumstances that determine its nature and appearances. There is no such thing as idiopathic fever. Every effect must have a cause; and no cause can act in the general system, but must affect it through an organ or set of organs. Disease, as well as motion, must originate from a single point; and the power that affects that single point generates the disease, and the climate is that power. With respect to the statement, that the disease attacks a person once only during life, if the evidence I have adduced to prove the identity of these diseases, and that they are not contagious, be conclusive, this position falls of course; and it is well known that the remittents of this country attack the same person frequently, though each succeding attack is generally milder, in proportion as the constitution becomes *creolized.*

Mr Neil, surgeon of the Antelope, for whose assiduity and abilities I have the greatest respect, thinks there *is* a difference between the Bulam or yellow-fever, and the bilious remittents, and that he can distinguish the Bulam fever from the others by the tongue at its commencement being natural, clean, red, and smooth, and by its terminating in one paroxysm: But, by referring to the adjoined table, where I have brought a few cases under a general view, I find that six of the seamen who had black vomit (the grand criterion of Bulam fever) had the tongue more or less foul. And on board the Childers, where they had the disease called Remittent fever, many cases occurred in which the tongue was clean at the commencement of the fever. I took notice of one in particular, Mr Macquay, whose tongue and mouth were moist, and preserved their natural appearance until the day before he died; even his countenance appeared remarkably healthy-looking and cheerful during the first three days, and I remember calling the attention of Mr Brown to these circumstances. The same natural appearance and moisture of the tongue and mouth had place in Mr Burton, Mr Purey, and the boatswain's wife, all of whom died. These facts I think sufficient to prove, that the appearance of the tongue cannot be relied on as a distinguishing symptom of Bulam fever. We observe the state of the tongue to judge that of the stomach and bowels. Where these last are diseased the former cannot be natural; but if the exciting cause be powerful and suddenly applied, I should expect the tongue to be clean when the disease makes its first appearance, and until the system had been for a short time under the diseased action. This distemper is certainly inflammatory; and an inflammatory diathesis cannot exist in the constitution without affecting every part of it; and the tongue will become rough, white, or black, which will greatly depend on the ingesta and the habits of the individual: But the cause must exist before the effect, and the patient may complain before the struggle which precedes the overthrow of the balance of the different powers of the constitution be terminated; and the increased action having taken place, the tongue will then certainly appear natural. A great many other causes which regulate the appearance of this organ might be adduced; but when it is fairly proved that one or more cases of this fever have existed when the tongue was foul, rough, white, or black, then a clean natural state of it can be no necessary part of the disease, and can distinguish it from no other; for if one can exist without this appearance, a thousand may. With respect to its terminating in one paroxysm; on referring to the cases of Mr Baron, Aylsbury, and others, I find they had intervals of *pain* and *easiness*. Now, I understand by paroxysm, merely *exacerbation*, and I cannot conceive an exacerbation or paroxysm, which could admit of intervals of pain or ease, or which could last for seven, eight, or nine days.

What I have to say respecting the *treatment*, shall be contained in very few words. Venesection *always* relieved the racking pains; brought on a flow of perspiration, thereby rendering the skin cool and soft; often prevented the coming on of irritability of stomach, and thus *cut off the disease at once*. But to be of the least use, it must be carried so far as to produce syncope; and *further*, if that effect is produced by the extraction of *a small quantity of blood*. This, in my opinion, is the only means of cure to be relied on; but it is necessary to state, that it will not always cure; for several have died delirious with all the symptoms of increased action and general irritation, though they had lost, on the first attack, from sixty to an hundred ounces of blood. Calomel, and other preparations of mercury, are generally esteemed specifics; but as all allow that the disease will be determined, with respect to its consequences, in, at most, three days, it will scarcely be found possible to impregnate the system, except, perhaps, by means of fumigation, in that time; I think it, therefore, very wrong to teaze the patient by useless rubbing in, or to increase his uneasiness by forcing calomel on him, especially after irritability of stomach has commenced. I have even seen many die of this disease after the system had been affected and the gums very sore. Calomel combined with jalap, is certainly the most appropriate *purgative* at the commencement of the disease; but when the fever appears in its most aggravated form, and calomel is given to affect the system, it is either rejected from the stomach, or passes by stool, without undergoing the least change in its passage; and, consequently, cannot be expected to supersede the diseased action. Mr Neil has made an observation, which I think well worthy of being recorded: it is, that *calomel and other preparations of mercury, are of great use, and only of use, where the tongue is foul, and where there are other indications of diseased secretions from the primary passages; and that they are of no use where the tongue is natural, clean, and no bad taste present*;—viz. They are of use where the disease is of so mild a type as not greatly to affect or destroy the patient before these diseased secretions have time to make their appearance. The cold-bath has been extensively used; it indeed rendered the patient cool and easy for a short time, but I always found the symptoms return with tenfold violence after it, when reaction had taken place: reasoning *a priori*, I should not expect much benefit from it. The heat and dryness of the skin are only effects of the disease, not its cause; therefore, it is absurd to endeavour to remove the cause by attending only to its effects; and, if the cause be removed, the effects will also disappear. Besides, the cold thus applied to the surface causes a contraction of all the external vessels, veins, and arteries; this contraction throws the blood in greater quantities on the internal organs, oppresses and overloads them, increases their diseased actions and secretions, and at last produces their most violent efforts to overcome this oppressed state, which is the *reaction* I have already mentioned. I, therefore, am decidedly against the use of the cold-bath. Perhaps sponging the body with cold water might be of use; but I would never prescribe vinegar and water; for all acids contract and corrugate the skin, close its pores, and hinder that transpiration which must precede convalescence. I have now given you the sketch which I promised, as far as *I observed the nature and course of this fever in the Antelope and Childers*; and I beg that as soon as possible you will write to me, and let me know in what we agree and disagree on this subject. If you think this letter worth inserting in any of the medical journals, you are at liberty to do so, or as you please with it. When in the Childers, I had a most severe attack of this fever, and was *given over* by the physicians at Barbadoes hospital for five days:—but I recovered.

ies.	Date of Attack.	State of Tongue.	Blood abstracted. oz.	Grains of calomel given.	Drams of mercurial ointment rubbed in.	System affected, or not, with the merc. oint.	Had black vomit, or had not.	Date of Death or Convalescence.
aron.	Mar. 17	foul.	22	205		not.	had.	died 28th Mar.
Smith.	30	clean.	85	75		not.	had.	died 4th April.
bury.	Apr. 2	furred.	44	125	8	not.	had.	died 7th ——
orris.	6	very foul.		165	18	not.	not.	recovered.
ar.)	6	foul.	20	190	4 sent	to Hosp.	Ap. 9,	died there.
	6	very foul.		120		not.	had.	died 14th Apr.
Mar.)	8	very foul.	30	10	sent to Hos.	April 9,	where	he recovered.
ar.)	12	very foul.	87	130		not.	not.	died 21st Apr.
rgood.	Oct. 2	white.	101	died	at Antigua	Hospital.		
sworth.	16	not said.	56	sent	to Hospital.			died.
e (R. M.)	21	clean.	55	100	4	not.	not.	died 25th Oct.
lack.)	24	foul.	38	200		greatly.	not.	recovered.
	24	clean.	77	165		affected.	not.	died 27th Oct.
rvey.	31	furred.	42	275	8	a little.	not.	recovered.
aws.	27	foul.	21	40		do.	not.	recovered.
ter.	30	not said.	48	185	non.	not.	not.	died 3d Nov.
ter.	Nov. 1	clean.	42	195		a little.	had.	died 4th Nov.
escott.	2	not said.	40	90		a little.	had.	died 7th Nov.
	30	foul.	29	430		not.	not.	died 4th Dec.
M.)	Apr. 16	white.	none	25		not.	had.	died 18th Apr.

H. M. S. Antelope, St Christopher's, January 4th, 1817.

VIII.

ations upon Diseased Spine, with a Case. By J. B. Estlin, Surgeon, Bristol.

time having elapsed since the Edinburgh Medical and urgical Journal has contained any remarks upon diseases spine; I shall take the liberty of recalling the attention readers to this most important complaint. With the ex- of the review of Mr Copeland's work on the Symptoms reatment of this disorder, I find no observations have ed on the same subject, since Mr Earle's 'Reply to the v of Mr Baynton's Essay on the cure of Crooked Spine,' d in the 11th volume, page 35.

his article, Mr Earle has entered into a very full exami- of Mr Baynton's Essay, and has noticed every case which ynton has brought forward in proof of the efficacy of his plan, of curing the disease by rest alone, in the horizontal posture.

In the first case (which, however, is one of diseased hip-joint), Mr Earle shows, that the cure might as reasonably be attributed to the use of setons, as to rest. In the 2d, setons were had recourse to during the whole treatment. The 3d he considers, by a reasonable inference, as not a legitimate case of diseased spine; and the 4th, he is also disposed to think, is not a very clearly marked instance of this disease.

The 5th case being a very interesting one, and an undeniable example of the complaint in question, Mr Earle criticises minutely, and very decidedly expresses his opinion, that the curative efforts of nature were called into action by the use of issues, and that the plan of perfect rest, pursued by Mr Baynton, though the most rational that could then be adopted, was only auxiliary to the advantages that had in the first place been obtained by the issues.

The subject of the 6th case died before Mr Baynton's plan was put into execution.

Cases 7th and 8th, Mr Earle observes, 'are both instances of common lateral curvature, which never take place from diseases of the bodies of the vertebræ, in which neither Mr Pott, nor any surgeon conversant with the principles of his profession, would have ever dreamed of applying issues.'

Mr Earle professes himself sceptical respecting the nature of the disease in the 9th case, which, he says, does not at all correspond with his ideas of destruction of the bodies of the vertebræ. A similar doubt he expresses with regard to the 10th, that of Master W. Castle, in whom he attributes the symptoms to that debility of constitution which is incident to the period of dentition, and which is removed 'by keeping the child off his legs, and giving such medicines as are calculated to strengthen the constitution generally.'

He thinks the 11th case no instance of diseased spine; attributing the pain in the back, and other symptoms, to the period of life of the young lady who was the subject of them.

Case 12th is one in which Mr Earle considers that issues had been of service, and that their good effects had begun to manifest themselves, at the period when the patient was subjected to Mr Baynton's mode of treatment, which he speaks of as highly judicious as an auxiliary.

In the 13th and last case, issues were also employed before the patient fell under Mr Baynton's notice, to which Mr Earle attributed the cessation of the morbid action, and the commencement of a healthy one: this, therefore, he will not admit to be an instance of the disease cured by rest alone.

Such is the nature of Mr Earle's remarks upon the cases which Mr Baynton has published as evidence of his success in curing disorders of the spine, in a mode different from that heretofore followed by medical practitioners. When cases are given to the public to illustrate any particular point of medical theory or practice, it is natural to select those which can admit of the least possible doubt, and which are involved in the least degree of ambiguity. It is curious to observe, that there is not a single instance among those published by Mr Baynton, to which Mr Earle does not object as unsatisfactory, and by no means a decided example of the efficacy of the new practice. On the contrary, the greater part of the identical cases which Mr Baynton insists upon as proofs of diseased spine being cured *without* the employment of issues, Mr Earle considers as examples, in which these discharges have had the greatest share in promoting the recovery of the patients.

Upon an attentive examination of the cases related in Mr Baynton's book, and of Mr Earle's remarks upon them, I cannot but think the latter gentleman has been rather fastidious in rejecting every case that Mr Baynton has adduced. The 4th appears to me to be a well-marked instance of diseased spine; it has certainly the most conspicuous features of this malady, and was cured by the patient's being confined to the horizontal posture of eleven months, without recourse having been had to drains. One difficulty with regard to it exists, which, Mr Earle remarks, is an argument against its being a fair illustration, namely, that at the expiration of the eleven months, the patient ' rose in as straight and perfect a state as possible,' after having had five of the vertebræ in a protruded state, in consequence of their being diseased. When the spine has been distorted by the approximation of some of the vertebræ from the softening and giving way of one or more of the intervening bones, the ravages committed by the disease are often repaired by the disposition of new bone, and the consequent consolidation of the diseased and distorted parts; but a return of the vertebræ to their natural situation, after such an event, is neither very common, nor very explicable; the distortion generally remains, though the diseased action has ceased.

In the 7th and 8th cases, though the internal curvature, as Mr Earle observes, might not be from disease of the bones, the tenderness discoverable by pressure upon some of the vertebræ, showed that they were in an inflamed state, and, in these cases, cures were effected, I presume, by rest alone. Mr Baynton says, that setons were recommended by medical men who had been consulted before him, but does not mention whether they were used or not; the natural inference, however, from the manner in which the cases are stated, is, that they were not had recourse to.

The 9th case appears to me not liable to the objections which Mr Earle makes, and is, in my estimation, a satisfactory example of the success of Mr Baynton's plan; and in that of Master Castle, I am not inclined to be so sceptical as Mr Earle is, and cannot agree with him in his suspicion that Mr Baynton had mistaken an increase in the natural curve of the dorsal vertebræ, resulting from debility, for a symptom of disease. It is not a probable supposition that a person so conversant as Mr Baynton must be, with disorders of the spine, could be led into such an error, though the idea is certainly somewhat countenanced by Mr Baynton's mentioning, as one of the more obvious signs of this disease, ' a projection or standing out of one or more of the spinal processes, beyond the *straight* line of the spinal column, ' as if he had forgotten the natural *curvatures* of a healthy spine.

In the greater part, however, of Mr Earle's critique, I cannot but coincide, and I think there are very few professional men who have paid attention to diseases of the spine, who, upon perusing Mr Baynton's work, will not at once see that he has completely failed in proving the superiority of his practice to that which has received the sanction of the most enlightened surgeons in Europe.

Whatever may be the opinion of professional men with regard to the justice or severity of Mr Earle's remarks upon Mr Baynton's essay, none will deny that they were entitled to a reply. Mr Earle is a gentleman of deserved reputation; he was educated in a school where a most successful method of curing diseased spine was first employed, and where an ample field has been open to him of studying this complaint in all its varieties; he has come forward in a manly manner, as the avowed supporter of a practice which it is the aim of Mr Baynton's essay to bring into disrepute, and must, as well as his brethren in the profession, be surprised that no notice has been taken of his remarks by the author of that essay, though they were published so long as two years ago. Those who are acquainted with Mr Baynton's professional talents and information, can hardly suppose him incapable of defending his essay from the objections which have been made to it; but the medical world at large, who have read the essay, and who have also seen the criticism upon it by a gentleman whose opinions must carry weight with them, may be disposed to form a less favourable inference.

It is impossible to read Mr Pott's observations upon disorders of the spine, without being forcibly struck with the accuracy of his remarks, and with the decided success which followed the plan of treatment he pursued. The labours of succeeding surgeons had so firmly established the truth of his principles, and the success of his practice, that bleeding in pneumonia, or diuretics in dropsy, were not fixed upon a firmer basis than the use of issues in diseases of the vertebræ. Bold indeed was the attempt to shake the foundation of this practice; and fortunately it has little to fear (to use Mr Earle's words) from 'the feeble and imperfect evidence' of Mr Baynton's cases.

There is, perhaps, in the whole science of surgery, no plan of treating diseases more rational, and more supported by analogy, than the excitement of counter-irritation in inflammation of the spinal column. Few surgeons can be ignorant of the beneficial effects of caustics in inflammatory affections of the bones or ligaments of the knee, ankle, hip and wrist-joints; daily may examples be seen, in which their use has saved diseased limbs from amputation; and, were there no instance upon record in which they had been employed in inflammation of the bones or ligaments composing the spine, the advantages of using them in this disease, which bears so near a resemblance to the former, might be calculated upon with a great degree of certainty.

But not in theory alone is this mode of treatment rational; there are few of the formidable diseases which fall under the surgeon's notice, that could furnish a larger catalogue of cures than those of diseased spine which have yielded to the application of caustics, or similar counter-irritations, in the vicinity of the affected part. Instead of *thirteen* cases, all of them objected to, and most of them certainly objectionable, a mass of evidence composed of as many hundreds would be necessary to shake the confidence of surgeons in this valuable remedy. Not less exceptionable than his cases, is Mr Baynton's reasoning in favour of his proposed method of cure. Nothing can be more hypothetical, or, as Mr Earle calls it, 'visionary,' than Mr Baynton's account of the diseased action which takes place in scrofula. Mr Earle, in his paper, to which I would refer the readers of this article, ably refutes it in a few words.

Mr Baynton seems to forget, that, when the spine is diseased, *inflammatory* action is going forward; and when he says it is difficult to account for the accomplishment of cures by the use of caustics alone, he appears to overlook the well known effects of an artificial external inflammation, in frequently checking the progress of a similar internal action. He speaks, too, not only of deficient action in the secreting vessels, but also in the *absorbents*, as being the cause of the disease: now, where ulceration of a part has taken place, and loss of substance followed, I have been accustomed to think that the absorbents have been too *active*, and not too indolent in their functions.

I should, however, regret to be thought to under-estimate Mr Baynton's professional talents; his reputation stands so high in the annals of surgery, that whatever comes from his pen is entitled to a respectful consideration; but the greater weight the authority of an individual carries with it, the more incumbent is it upon those surgeons who are zealous for the advancement of their profession, to oppose, by all the rational arguments they can adduce, any practice he may recommend, that seems to them founded upon insufficient grounds.

When any improvement is first introduced into the practice of medicine or surgery, its discoverer is generally so sanguine as to dismiss all former modes of treatment, and to depend only upon the new one. If the discovery be really valuable, it will, in a short time, find its proper level, and will probably be considered a useful auxiliary to long-established practice. This, I believe, will be precisely the case with Mr Baynton's proposal of curing diseases of the spine by rest alone. Few, I imagine, will ever trust to it so implicitly as to omit other means, particularly the employment of issues; but I have no doubt, it will be the means of inducing surgeons to enjoin rest in these complaints, more strictly than they have been accustomed to do, and will thus accelerate the cure of their patients. At all times, however, a degree of caution will be necessary in recommending to patients who have been in the habit of taking some exercise, a state of undeviating rest; in infants, it is impracticable. Though Mr Baynton considers resting in the horizontal posture as so effectual in '*improving the circulation*, favouring the deposition of bone, and *promoting absorption*,' cases will frequently occur, in which the very reverse of these happy consequences may be more reasonably anticipated. Infinite is the variety in the human constitution; and a plan of treatment which may be very efficacious in a disease in one person, will require considerable variation when put in practice in another.

It is notorious that a great number of persons with diseased spine have recovered under the use of issues, without having recourse to the recumbent posture more frequently than during the usual hours of rest. Others have been restored to health while assisted by machines in addition to issues, proving that, in many cases, a state of undeviating rest is by no means necessary to recovery, though, had it been employed, it might have proved accessory to it. I suspect that the use of machinery has been often condemned in too indiscriminate a manner. That mischief may sometimes have been done by suffering it to supersede the use of issues, is not improbable; the same, I have no hesitation in saying, will frequently be the case, if perfect rest be alone trusted to. I cannot doubt, that, in some attacks of vertebral disease, an instrument which will diminish the weight the spinal column has to bear, by removing it to the pelvis, will, in conjunction with issues, be sufficient to effect a cure; indeed, it is not a matter of opinion; daily experience proves the fact; and there are practitioners who pursue no other plan of treatment in remedying this disease, and who meet with great success. It is probable, that, in many of these cases, the general health of the patient is improved by his being able to take some exercise; and that walking about has been more effectual in '*improving the circulation,*' than lying on his back would have been. On the other hand, it must be admitted, that perfect cures will sometimes be effected by rest alone in the horizontal posture. Besides some of Mr Baynton's cases in support of this practice, a very good one has been published by Dr Armstrong, in the ninth volume of this Journal. Yet, all the evidence we have of the efficacy of this treatment, will go but little way in justifying Mr Baynton's belief, that 'drains are not generally, if they are ever, necessary for the curing of such diseases.' It must be remembered, that occasionally cases will be met with which will baffle every attempt of the surgeon to cure them, whatever plan he may pursue. We must not expect unvaried success; and it is no argument against the general use of issues, that every person does not recover in whom they have been employed.

There is an objection which Mr Baynton makes with regard to the employment of issues, which I cannot avoid replying to. He speaks of the '*suffering*' experienced by patients who are treated by issues, and considers the escape from them, procured by his mode of treatment, as an important circumstance in recommendation of his plan. 'The lying,' he says, page 38, 'upon open ulcers of considerable extent, filled with peas, beans, or other hard bodies, will be prevented by the adoption of this plan of treatment,' which he calls 'more simple, more reasonable, and *much more agreeable.*' This appeal to the prejudices of the ignorant, may be opposed by objecting to the '*suffering,*' which, in some cases, his own method must inevitably inflict; for in the fourth case, that of a young lady, (page 84), it is said, 'five of the vertebræ were found in a diseased protruded state, and *so exquisitely tender*, as to render *pressure* almost *insupportable;*' and yet this young lady was condemned to lie with her whole weight upon this exquisitely tender part, rendered still more exposed to the pains of pressure by its being more prominent than any other part of the back! To arrive at very '*agreeable*' methods of curing diseases, is, I fear, never likely to be the lot of medical practitioners: we must be satisfied with being able to alleviate the pangs of disease upon less advantageous terms; and if the surgeon, in the discharge of his arduous duties, had to inflict no more severe suffering than the formation of an issue or seton in cases of diseased spine, his art would be freed from any great degree of terror to his patients, or pain to himself. Common principle and common humanity will always influence a conscientious practitioner to select that mode of treating a complaint, which, *cæteris paribus*, will be least distressing to his patient; but the man of enlarged views, who takes a genuine interest in the improvement of his profession, will be more solicitous about the *useful* than the *agreeable*, in his practice. The fact is,—that the discharge so important in disease of the spine, may be procured by means which will occasion but trifling inconvenience to the patient. 'The making and dressing of setons' may, as Mr Baynton says, be painful and troublesome; particularly, if they be such as he inserted in Mr Thornton's back (Case 3d), '*eight or nine inches in length!*' but caustic issues, which are now most approved of, may be managed even with peas or beans in them, so as to give but very little uneasiness. Nor can I even admit that the slight degree of movement which is necessary to have the issues dressed, can be productive of the danger Mr Baynton apprehends: on the contrary, I conceive, that it is as likely to prove beneficial as injurious:—it is not unusual to have recourse to gently moving the extremities of a fractured bone, for the purpose of accelerating the deposition of ossific matter, when that process is going forward languidly.

To conclude the remarks which Mr Baynton's Eassy has given rise to,—I conceive, that, in the greatest number of cases, the observance of undeviating rest in the horizontal posture, will be found a valuable addition to the present mode of treating diseases of the spine, and for this Mr Baynton is entitled to the thanks of the profession; but I consider his object, of exploding the use of issues in this disorder, as an attempt at a dangerous innovation, and one that demands the most decided opposition of his professional brethren.

Diseases of the spine, when so far advanced as to occasion projections of the vertebræ, and palsy of the lower extremities are instantly detected by the surgeon: but how desirable would it be to discover the approach of the disorder at its first advances! Permanent deformity, and many of the sufferings attendant on this formidable complaint, might then be frequently averted. The profession is indebted for some very judicious remarks on this subject to Mr Copeland. His 'Observations on the Symptoms and Treatment of diseased Spine, more particularly relating to the incipient stages,' are well worthy attention. This author has, I believe, been the first to direct the attention of practitioners to the commencement of the complaint.

Many of the constitutional symptoms attendant upon the incipient state of diseased spine, such as loss of strength and appetite, uneasiness in the back, listlessness, &c. are so often found in other disorders, as to be very equivocal. When, in conjunction with them, it is found that slight pressure upon the spinous process of one or more of the vertebræ occasions considerable uneasiness, while the others of the column may be pressed upon without betraying any unusual tenderness, we are warranted in considering that inflammation exists in the ligaments or bones of the part, which, if neglected, will probably terminate in caries of the bodies of the vertebræ, and produce the usual distressing consequences of the more advanced stages of this disorder. There will always be considerable difficulty in ascertaining, before any distortion has taken place, to what degree the inflammation, or even caries, may have proceeded; for caries will sometimes occur in the bodies of the vertebræ, without any displacement of the bones. Mr Copeland mentions a preparation he has, in which the intervertebral substance of some of the dorsal vertebræ has been entirely removed, and the bones anchylosed, without any alteration having taken place in the situation of the spinous processes.

As much obscurity will often exist in the early symptoms of this disorder, great vigilance and attention will be necessary on the part of the practitioner to detect them, and arrest them by decisive measures. Issues, and continued rest in the horizontal posture, if had recourse to early, will, I believe, in most cases, succeed in checking the progress of this formidable complaint, and in preventing its ever reaching an alarming height.

I will conclude these observations by detailing a case which fell under my care, where the good effects of this plan were strikingly exemplified.

In February 1811, Miss ——, aged 26, after a ride on horseback of about twenty miles, felt, for the first time, a weakness in the back, and general sense of languor; to remove which, she was advised to lie down upon her back during a part of every day; she followed this advice, and, in a few weeks, felt no more of the indisposition. In the following winter, she used great exertion, by taking frequent and long walks, for nearly four months, and again felt a local weakness in the back; there was also, she recollects, some degree of tenderness in the vertebræ when pressed. These symptoms were also relieved by occasional recumbency and repose from much exercise, but, during the summer (1812), the uneasiness returned so constantly, that she was obliged to lie down the greatest part of the day. She always felt easy while lying down. In September, by the advice of a medical gentleman, she put on a machine, which was constructed to remove the weight from the spine, and throw it upon the pelvis. During the next twelve months, she either lay down, or sat with the assistance of this machine: she used to sit up for one hour, and lie down two or three; then sit up for an hour, and so on. At the expiration of these twelve months, she was, upon the whole, worse: the sensation in the back, which she has uniformly described as more a feeling of weakness than of actual pain, had increased: talking, laughing, or crying, even while lying down, always produced a heat in the back, and she constantly felt a sensation as if bits of horse hair were pricking the back. At this period, September 1814, Mr Cline was consulted by letter: he said, that he considered the symptoms those of inflammation going on in the back, and recommended rest in a horizontal posture. Another eminent surgeon, residing at a distance, was also consulted by letter, who thought the case was one of diseased spine, and recommended, as Mr Cline had done, undeviating rest in a horizontal posture. This plan was scrupulously persevered in, from September 1814 to April 1815. The patient lay, for the first two months, upon a hair-mattress, but, fearing it might be too yielding, she had it removed as far as the small of the back, and a board covered with blankets upon a level with the upper part of the mattress, was substituted.

On the 14th of April 1815, I saw her for the first time since her indisposition. My notes say, that she feels exactly in the same state in which she has been for some months. When perfectly at rest, and not speaking, she experiences no inconvenience. Moving the arms, and talking, affect her most. Yawning, sneezing, laughing, crying, and coughing, occasion the sensation of weakness and heat between the shoulders, or, as she expresses it, 'under the lungs.' She describes the general feeling as 'a want of compactness in the vertebræ.' If she holds up a book for a short time only, her back becomes heated, and she has slight pains, 'like lines as small as horse hairs, and about an inch in length.' To communicate an idea of her feelings, she also describes them to be 'as if all the ligaments of the body were suspended by a wooden peg between the shoulders.' An obstinately constipated state of the bowels exists. During the day her couch is wheeled into an airy drawing-room; and her clothes are contrived so as to be put on and taken off without her removing her back from the mattress. When she feels the uneasiness in the back most, she is able to refer it to a particular and small spot between the shoulders.

Upon examining the spine attentively, no distortion or curvature was perceptible. Pressure with the fingers upon the cervical vertebræ occasioned no uneasiness; but, when it was applied to the third or fourth dorsal, she started suddenly away, and said her breathing was impeded by it. The sensation thus produced, she said, could not properly be called pain. The same tenderness existed in several of the succeeding bones; but the principal seat of it was between the third and seventh, or eighth. There was not the least tenderness in the lumbar vertebræ.

After this examination, I could entertain no doubt that several of the dorsal vertebræ were affected by disease; and, when I considered how long the patient had been indisposed, and how slight a degree of pressure occasioned the sudden starting and uneasiness she complained of, I was led to fear that the progress of the inflammation had been considerable, though no curvature or paralysis had yet appeared. The custom she had so long adopted of lying down whenever the back was uneasy, and of thus relieving pressure, was probably the cause of the complaint's not having manifested any appearance of distortion or palsy.

As the plan of undeviating rest had been persevered in for seven months, without producing any considerable amendment (though she thinks she felt a little benefit from it), I did not hesitate to propose the immediate establishment of issues on each side of the affected part of the spine; and could not help feeling regret, with my views of this disorder, that so much time had been suffered to elapse without their having been had recourse to. I had, however, the pleasure of finding that the result did not disappoint my most sanguine anticipations.

I applied the Potassa fusa to a circular space, of about an nch and a quarter in diameter, on each side of the tender verebræ. She lay upon her face for about twenty minutes while he eschars were forming. The surrounding skin became considerably inflamed. On the evening of the day upon which the caustics were applied, she said her back felt less uneasy than it had been for some time before, though she had used more exertion than she had done for a considerable preceding period.

As the lady who is the subject of this case lived at a great distance from Bristol, I was obliged to leave her the day after the application of the caustics; but she was fortunate enough to remain under the occasional observation of a gentleman who is eminent for his professional abilities, to whose judicious cooperation I feel much indebted, as instrumental to the happy termination of a case, where feelings of private friendship added to the interest which, in a professional point of view, I naturally took in it.

When the eschars formed by the caustic had sloughed away, the openings were kept discharging by the insertion of a large Windsor bean into each; and, on the 15th of May, a month after the caustics had been applied, I received the following account.

'She has not felt lately the heat and irritation she used to have in the back, excepting one day when she coughed a great deal and sneezed. She turns upon her side more easily than she did. Talking does not produce so much local heat as it did.'

June 11.—'The vertebræ are as tender as they were at first, but the catching of the breath when they are pressed by no means so great. The issues discharge freely.'

I cannot give a better idea of the *immediate* good effects of the issues, than by transcribing her own words from an account of her case which she has since favoured me with. Speaking of her state previous to the period of my seeing her, she says,—

'From September 1814 to April 1815, I simply lay down, and certainly felt benefit, but still the inflammation in the part continued on the smallest exertion; even the weight of my hands crossed upon my chest was a burthen; and the least movement of hand or foot seemed to bear on the weak part only. Coughing or sneezing I dreaded, as the jerk seemed to strain the part. In April you applied the caustics; from that time I felt *nothing* of the pricking: the effect seemed instantaneous.'

The symptoms gradually abated. The caustic was applied to a fresh part, and the former openings suffered to close. In all, five issues were made. The fear of producing any recurrence of the symptoms by a premature remission of the plan that had proved so beneficial, was the cause of its being persevered in longer, perhaps, than was absolutely necessary. In February 1816, as no uneasiness was felt upon pressing or knocking the vertebræ, and the catching of the breath having ceased for some months before, on the application of pressure, she began to be raised during the day a little from the horizontal posture, by means of a contrivance in the crib for the purpose. There was a hinge at the part where the bottom of the back came, which enabled the upper part of the trunk to be raised towards the sitting posture. Soon after this, her progress received a little check, owing to a catarrhal attack, attended with cough: and frequently, during her confinement, she had to contend with the depressing influence of mental anxieties. It is not, then, to be wondered at that she did not venture to sit upright before the December following. On the first day of the present year she *stood*, and in a fortnight after was able to *walk*. In the latter end of last March I saw her again, and examined the back. There was no more sensation upon pressing the vertebræ than the soreness of the skin produced by the issues, which were then inflamed, fully accounted for. Her amendment has continued. The issues have been suffered to heal. She goes up and down stairs, walks out, and is able to indulge in the recreations of playing, singing, and drawing. Her back is free from uneasiness, and her general health unimpaired. It may not be amiss to observe, that the '*suffering*' occasioned by the issues was too trifling to be named.

IX.

Account of the fatal Accident which happened in the Leadhills Company's Mines, the 1st March 1817. By Mr JAMES BRAID, Surgeon, Leadhills. Read before the Wernerian Society 7th June.

On 1st March last, I was sent for, about 7 o'clock A. M., to try if any thing could be done for a number of men, who were found in the Leadhills Company's mines, who appeared to be suffocated.

On the 30th December 1816, a young man, who kept a fire-engine, nearly 600 feet below the surface, was found dead, and the air where he was, not to be at all agreeable:—the usual modes of resuscitation were tried, but without any good effects.

On 24th of February 1817, there were several men very severely affected from the bad state of the air; but, by giving them gentle laxatives, and keeping them quiet, they got pretty well again in the course of a few days.

On the 1st of March, none of the men had got to bank when I arrived, except a few who had been down only a very short time, and returned upon finding the air so bad. By and by, a number of those who had been down for a short time, at 25 fathoms, were brought up, and most of them quite furious. Some were disposed to fight,—others, supposing every one they saw disposed to lay hands on them, made efforts, under the most extreme terror, to escape,—others, quite listless, appeared to take no notice of what was going on around them. Some were singing, and some praying. Many were as if intoxicated with ardent spirits:—those who had seen them in that state assured me their actions were very much the same.

Many of them vomited, and others had the inclination, but could not do so. Some evacuated the contents of the rectum, and others had the desire, without effect. The pulse was different:—in some remarkably quick and feeble, in others slow, feeble, and irregular. Most complained of insufferable headach, which was somewhat relieved after vomiting. To those who had a desire to vomit without effect, I gave an emetic of sulphate of zinc, and to those troubled with tenesmus, a laxative glyster;—both were followed by an alteration of symptoms.

In the course of two or three hours from the time they were brought to bank, the pulse was greatly accelerated, and hard. I prescribed a brisk purgative; after the operation of which they found themselves greatly relieved; and, by enjoining a cooling regimen, most of them got pretty well, in the course of a few days, without any other medicines. Upon inquiring at the men how it affected them, they said, they first felt a difficulty of breathing, and had frequent involuntary deep inspirations,—then a violent pain and beating in the head, with ringing of the ears,—the inferior extremities became weak, and very painful immediately above the knees, and they could, with difficulty, support the body,—the heart palpitated violently,—great anxiety, and in some followed by vomiting. They now became giddy, and lost all recollection, and were, as has been remarked, affected as if they had taken a large dose of ardent spirits.

There were four men, however, at 25 fathoms, who were irrecoverably lost through their own imprudence of going to work at irregular hours. Though six o'clock A. M. was the proper hour, two had gone before four, and other two a little after, in order that they might get out so much sooner. Such practices are not sanctioned by the masters. When they came to the bad air, they had thought to force their way through it, expecting it to be better below; but it had soon produced its deleterious effects upon them, so as to make them unable, either to go further, or to retrace their steps; and then, unable to support themselves, they had fallen, and remained amongst the bad air till assistance came too late. Animation must have been gone two or three hours before they were brought to bank, for they had been down not less than four hours. Had they not gone till the regular shift, when the air was found to be so bad, they would not have proceeded so far; and if one or two had fallen, the others would have found some means to have rescued them, before they had been irrecoverably gone. It is presumed, the accident happened from a quantity of smoke escaping from the chimney of the engine under ground, into the way-gates, about the 25 fathoms, and so contaminating the air in the workings, from the quantity of sulphurous acid gas which the smoke contained, such as to render it unfit to support animal life, or rather, highly deleterious. The men described the air to be the same as where sulphur is burning slowly, and, consequently, sulphurous acid gas forming.

At the time the accident happened, the atmosphere was foggy, and there ~~was a~~ want of a proper current of air in the workings; and, in consequence of the stagnation, the air in that part of the way-gates where the smoke was escaping, became so contaminated, by sulphurous acid gas, as to render it highly deleterious to animal life. A trap-door being opened, in order to save those who were still alive, about the 25 fathoms, (that is, those who went at the time for a regular shift), the four who had gone in before, were dead when these men went to them; and, to enable others to give them assistance, with safety to themselves, the bad air immediately rushed down to the lower workings, and began to exert its deleterious effects upon those at 80 fathoms, who were effecting their escape by another shaft. All who were any length of time in this situation were violently affected in the manner already mentioned, and three (two of whom went down to save others) perished at the 80 fathoms, from the air all below the 40 fathoms becoming so bad, as to render it imprudent, or rather impossible, for any person to go down to their assistance; and by this time, they were unable to assist themselves. Those in this situation were drawn up by an engine; and the last who got on the rope from the others, either, by this time, not being *able* to secure him properly, or not having time to do so, from him giving the signal too soon, fell from the rope, after he was within 20 fathoms of bank, and was thrown into the landing-box of the water-engine, which threw the water from the landing-box (which is situated at the 50 fathoms) to the bottom of the shaft, so that it had 40 fathoms to fall. Water was also thrown from the top, with buckets, before the engine water was diverted by this poor fellow tumbling into the landing-box. The water, by falling down the shaft, caused a circulation of air; and likewise, by absorbing the sulphurous acid gas, improved the air so much, that one who had lain at the side of the shaft, in an insensible state, for more than an hour, was restored. Other two, who were only at a very little distance from him, but were by so much further from the shaft, and consequently where the air could not be so much improved by the waterfall, were brought up immediately after him; but, though the usual modes of resuscitation were tried, neither of them could be restored. One of these last had had a very florid countenance. I took away a considerable quantity of blood from the jugular vein.

Those of a plethoric habit were much sooner, and more violently affected, than those of a spare habit; and, from what I saw, I make no doubt but one of a spare habit might remain in some degree active, whilst one of a very plethoric habit would be irrecoverably lost. When it becomes necessary for men to go into such situations, would it not be proper to take away a quantity of blood from those of a plethoric habit? I shall certainly be disposed to try it, if ever the air shall again become bad.

The candles burnt, though faintly, where the men perished, which was generally considered as an extraordinary thing; and the only hypothesis which I can conceive proper to be advanced on the subject, is, that, in a mixture of sulphurous acid gas and atmospheric air, the acrid nature of the sulphurous acid gas prevents respiration, or rather produces peculiarly deleterious effects, which, continued a certain length of time, will destroy animal life; whilst it has no further effect on combustion, than merely mechanically preventing the more free supply of oxygen it would have from pure atmospheric air, and, consequently, causing it to burn more faintly.

Leadhills, 3d *May* 1817.

X.

Cases of Catarrhus Hepaticus. By JOHN HAY, Esq. Surgeon, 2d Battalion Hon. E. I. C. Artillery, Madras.

JOHN PLANT, matross, 2d Battalion Artillery, ætatis 23, a recruit, admitted into hospital July 6, 1816. Has suffered from frequent short distressing cough for several days, without expectoration; pain of chest and right hypochondre, the latter much aggravated by pressure; bowels generally confined; tongue loaded; pulse full and frequent, heat increased.

Mittantur pleno rivo sanguis unciæ quatuordecim.
Applicetur emplastrum vesicatorium supra jecur.
Capiat mox bolum e submuriatis hydrargyri granis vj.
Extracti convolvuli jalapæ resinosi granis duodecim.
Antimonii tartritis grani tertia parte.
Utatur regimine diætæ imo.

7th.—Feels better; bolus purged him freely; blood drawn in full quantity; blister rose well.

Sumat acidi nitrosi diluti guttas octoginta, ex aquæ libris duabus, portionibus parvulis de die; necnon hora decubitus, et per mediam noctem submuriatis hydrargyri grana tria.

8th.—Cough again more troublesome, and sputum of doubtful appearance. Bowels open from pills.

℞ Misturæ physeteris macrocephali sevi uncias octo.
Tincturæ digitalis purpureæ guttas triginta. Fiat mistura cujus capiat semiunciam frequentissime urgente tussi.
Bis indies, sumat massæ hydrargyri grana quinque, et cras mane bolum mercurialem purgantem.

9th.—Considerably better. Cough easier. Expectoration (when put to the test with caustic alkaline lixivium) decidedly purulent; is now under action of purgative.

Repetantur mistura pectoralis et pilulæ hydrargyri ut heri.

10th.—Bolus gave three dark motions; is much easier; has now no pain at side or chest; cough still troublesome.

Addatur misturæ pectoralis tincturæ scillæ maritimæ drachma.
Continuentur pilulæ, necon cras prima luce bolus purgans.

11th.—Bolus already operates; cough continues in slighter degrees, but sputum equally purulent; pulse calm.

Repetatur mistura pectoralis cum tincturæ digitalis guttis quadraginta. Continuentur pilulæ hydrargyri.

12th.—Bolus acted freely; bowels still open; sputum, as well as cough, diminished.

Repetantur mistura cum tincturis digitalis et scillæ, necnon pilulæ hydrargyri.

13th.—Still improving; belly twice open.

Repetantur medicamina ut heri.

14th.—Much better; sputum now daily loses its purulent quality; belly freely open.

Continuentur medicamina ut supra, et cras mane bolus purgans.

15th.—Cough much easier; sputum still somewhat purulent; belly regular.

Repetantur mistura pectoralis et pilulæ hydrargyri.

16th.—Continues much better; belly still well opened.

Addantur misturæ tincturæ digitalis guttæ quinquaginta. Continuentur pilulæ hydrargyri.

17th.—Now coughs rarely, and sputum inconsiderable; mouth slightly affected.

Continuentur medicamina ut heri.

18th.—Still coughs, chiefly in the morning; sputum again more purulent; bowels open.

Repetantur mistura et pilulæ, et hora somni capiat pulveris rhei palmati semidrachmam.

19th.—No sputum in last 24 hours; powder gave only one motion.

Repetatur mistura cum tinctura digitalis et scillæ. Continuentur pilulæ hydrargyri.

20th.—Better; cough has ceased.

Continuentur medicamina ut heri.

21st.—No return of cough.

Repetatur mistura cum tincturæ digitalis guttis quadraginta, et tincturæ scillæ drachma. Continuentur pilulæ hydrargyri.

22d.—Much as before; no cough.

Repetantur tincturæ ut heri.

23d.—Same as yesterday.

Repetantur pilulæ et mistura pectoralis cum tincturæ digitalis guttis viginti quinque.

24th.—No complaint.

Repetantur medicamina ut heri.

25th.—No cough nor sputum. Bowels regular. Mouth slightly affected by mercury.

Intermittantur pilulæ hydrargyri.

Repetatur mistura cum tincturæ digitalis guttis duodecim.

26th.—Well.

Repete medicamenta ut heri.

27th.—Continues well.

Discharged.

Catarrhus Hepaticus.

James Gaynor, matross, 2d Battalion Artillery, ætatis 20, a recruit, admitted into hospital July 18th 1816.

Complaining of having had severe pain at right side, extending up the chest, for some days, attended with teasing cough, with expectoration of purulent matter: pulse rather full; skin cool; tongue loaded; belly confined.

Sumat mox bolum ex hydrargyri submuriatis granis quatuor; Extracti convolvuli jalapæ resinosi granis duodecim; Antimonii tartritis grani quadrante.

19th.—Pain still continues; bolus taken, not yet operated; belly confined; has pain on pressure at liver; pulse full and frequent.

Injice illico per anum clysma purgans.

Applicetur vesicatorium supra situm jecoris.

Mittantur sanguinis e brachio pleno rivo unciæ quatuordecim, et mane vespereque capiat submuriatis hydrargyri grana tria.

20th.—Blister rose; blood dark and sizy; pain rather easier; cough troublesome; belly freely opened.

Repetantur pilulæ ut heri.

21st.—Cough still continues troublesome, and respiration becomes more affected; eyes suffused; tongue foul, without thirst; gums affected by mercury; all pain removed; pulse 102.

℞ Magnesiæ sulphatis drachmas sex.
Foliorum cassiæ sennæ drachmas tres.
Fraxini orni succi concreti drachmas duas. Infunde in aquæ ferventis unciis decem per horæ quadrantem et cola. Capiat dimidium statim, et alteram partem vespere.

Infricetur unguenti hydrargyri semiuncia de die. Intermittantur pilulæ.

22d.—Had 8 dark bilious stools from two portions of infusion, and seems to-day much better; had his rest broken by cough, but is in all respects easier, excepting after severe fits of coughing, when his respiration becomes affected. Used in the evening saline effervescing draughts, with antimonial wine, which produced a soft moisture on the surface. Skin to-day soft, cool, and moist; pulse 100; tongue cleaner, and spits much from mercury.

Habeat haustus effervescentes diaphoreticos frequenter.

Repetatur unguentum hydrargyri, et pro potu.

Habeat decoctum plantaginis ispoghul cum radice glycyrrhizæ glabræ et nitrate potassæ, necnon hora decubitus detur iterum bolus purgans.

5 P. M.—Since noon, had increase of heat, fulness and quickness of pulse, and more cough, with purulent sputum, tinged with blood; pain at chest and side during paroxysms of cough.

Fiat venæ sectio ad uncias sex statim, et detur mox bolus mane præscriptus. Addantur decocto ispoghul tincturæ digitalis purpureæ guttæ quadraginta.

23d.—Had much cough in the night, but more rest; blood drawn dark and sizy; pulse 92 and softer; has less heat; been several times to stool in the day, and thrice at night; sweated freely; urine (by account) high coloured, and rather scanty; medicines been neglected.

Applicentur hirudines decem hypochondrio dextro.

Repetatur decocti ispoghul libra, cum nitratis potassæ drachmâ, et tincturæ digitalis guttis triginta nocte maneque (sexaginta de die.)

Vespere capiat submuriatis hydrargyri grana decem, antimonii tartritis grani tertiam partem, et per noctem repetatur mistura salina diaphoretica. Continuetur unguentum hydrargyri.

24th.—Became uneasy in the afternoon; cough very troublesome, and respiration more affected; belly once moved in the day, and once loosely at night; leeches bled very freely; skin cool; pulse moderate, but complains of weakness and thirst this morning; says he has been distressed with pain at blistered part from coughing; had no sleep till towards morning, and has no hectic symptoms; vomited once in the evening from medicine; pulse now 104; skin moist; mouth more sore.

Adhibeatur emplastrum unguenti hydrargyri parti vesicatæ. Repetantur bolus purgans, decoctum ispoghul cum tincturâ digitalis nocte maneque, et mistura salina diaphoretica. Continuentur perfricationes.

25th.—Became easier about mid-day; passed the evening and the early part of the night well, but slept none until daybreak; cough much easier; has sense of fulness of abdomen; bolus gave only two motions; urine frequent, but scanty; no nausea; pulse 102, soft; skin moist; sputum more mucous.

℞ Foliarum cassiæ sennæ drachmas tres.

Supertartritis potassæ drachmas sex. Infunde in aquæ ferventis unciis duodecim per semihoram, et cola. Capiat uncias tres secundis horis.

Repetantur perfricationes, decoctum cum tincturâ, et nitrate potassæ bis ut supra. Accipiat per anum, enema domesticum, et horâ somnii detur bolus ex hydrargyri submuriatis granis decem, antimonii tartritis grani tertia parte.

26th.—Much better; mouth more affected, and spits more; rested however badly; cough less frequent; sputum more easy and much diminished; skin cool; pulse 108, and very calm; urine still high coloured; belly four times moved in the day and thrice at night.

Perfricentur unguenti hydrargyri drachmæ tres.

Continuetur decoctum ispoghul, cum tincturæ digitalis guttis triginta quinque (bis de die) et nitratis potassæ scrupulis duobus.

Recipe acidi nitrosi diluti guttas octoginta ex aquæ libris duabus, portionibus parvulis de die, et utatur colluterio astringente.

27th.—Greatly better, cough much removed, and greatly easier; expectoration very slight, and without appearance of pus; pulse 92, and soft; belly freely open; has no uneasiness at side or breast whatever, but rests badly at night.

Perfricentur unguenti hydrargyri drachmæ duæ. Continuentur alia ut heri.

28th.—Continues to improve; pulse 88, and calm; had five light-coloured motions with show of slime, and at times slight straining cough; again this morning more troublesome; in other respects much as yesterday.

Capiat nunc olei ricini drachmas quinque, ex aquâ menthæ piperitæ. Continuentur alia ut supra.

29th.—Been easy; had four motions from oil; straining nearly removed; had no cough whatever in the night, but is again this morning troubled with it.

Perfricetur unguenti hydrargyri drachma.

Continuentur alia, et cras mane repetatur haustus oleosus.

30th.—Had slight return of cough in the evening; oil taken.

Repetantur medicamina ut supra.

31st.—Had again severe cough in the evening; feels tenderness when pressed at margin of right false ribs; belly twice open yesterday.

Applicetur emplastrum vesicatorium supra sternum et costas nothas. Continuentur alia ut heri, et cras mane haustus oleosus.

August 1st.—Blister rose well; oil taken; cough less troublesome. Continuentur medicamina.

2d.—Complains chiefly of weakness; oil gave three motions.

Repetantur remedia ut supra.

3d.—Much better; cough less troublesome.

Continuentur remedia.

4th.—Improves; belly open.

Perfricetur unguenti hydrargyri semidrachma de die. Repetantur alia.

5th.—Daily better; cough easy; sputum ceased; belly free.

Capiat mox olei ricini semunciam ex aqua menthæ piperitæ. Repetantur alia.

6th.—Oil gave seven motions; cough inconsiderable, and still no appearance of pus; improves in appearance and strength.

Continuentur decoctum, mistura acida et unguentum hydrargyri.

7th.—Cough nearly gone; belly open.

Repetatur decoctum cum tinctura digitalis guttis viginti quinque, bis de die. Continuentur alia.

8th.—Complains of sense of weakness at right side; coughs rarely; belly freely open.

Applicetur emplastrum ex emplastri lyttæ parte una, emplastri lythargyri partibus quatuor, supra latus dextrum. Continuentur alia.

9th.—Still better; belly twice open; coughs but little.

Repetantur medicamina.

10th.—Complains only of weakness; belly free.

Repetantur remedia, et cras mane capiat olei ricini semunciam, tincturæ cassiæ sennæ drachmas duos, ex aquæ menthæ piperitæ uncia.

11th.—Same; oil taken.

Repetatur decoctum plantaginis ispoghul cum tincturæ digitalis guttis quadraginta semel tantum de die. Continuentur alia.

12th.—Oily draught gave three stools; regains strength.

Continuentur remedia.

13th.—Doing well. Repete remedia.

14th, 15th, 16th.—Same. Repetantur remedia.

17th.—Improving.

Capiat pulveris rhæi palmati grana viginti quinque, potassæ sulphatis grana duodecim, ex aqua.

18th.—Powder gave six stools; cough entirely removed.

Repetantur remedia.

19th.—Same. Continuentur medicamina.

20th.—No cough; belly freely open.

Recipe acidi nitrosi diluti guttas octoginta, tincturæ digitalis guttas viginti, aquæ libras duas. Fiat mistura cujus capiat uncias quatuor ternis horis, et secundis diebus perfricetur unguenti hydrargyri semidrachma. Intermittantur alia.

Continued daily to improve in health, strength, and appetite, and was discharged on 29th August.

St Thomas Mount, 12*th September* 1816.

PART II.

CRITICAL ANALYSIS.

I

An Essay on the Utility of Blood-letting in Fever, Illustrated by numerous Cases. Second Edition. With a Supplement, containing Cases and Dissections which occurred in Private Practice. By THOMAS MILLS, M. D. &c. &c. Dublin, 1816. 8vo. pp. 327.

We reviewed this work, when it first appeared, at great length. (*See* Journal, Vol. IX. p. 451.) The present edition is increased by a Supplement of 107 pages, containing 24 cases of fever, which was added in consequence of a suggestion, that a mode of treatment, successfully adopted with the lower classes, would not be suited to those in a better condition of life.

The form and style of the appendix correspond in every respect with the original work; and we regret that our author did not take the opportunity of a second edition of his essay being called for, to render it more methodical and connected. The cases in the appendix are printed without attention to classification; and to each is subjoined a short commentary, which arises out of the consideration of the history. This might be very well adapted as a clinical remark to those who witnessed the case, but it renders the perusal of the work very laborious; at the same time, it must be allowed, that it gives a very strong conviction of the fidelity and truth of the narration.

We shall only extract Dr Mills's general conclusions.

> ' From the whole of what has been said the following inferences may be drawn.
>
> ' 1st, Fever is an inflammatory affection.
>
> ' 2d, Fever is of one kind, of which there are many varieties.

'3d, The varieties depend on the organ or part particularly affected.

'4th, The following advantages are to be derived from blood-letting, viz.

'A diminution of the mortality of fever.

'The preservation of the strength by the more speedy and effectual removal of disease.

'The prevention of morbid actions and disorganization in the various viscera in which fever may be seated.

'5th, The advantages to be derived from blood-letting, do not depend on the quantity taken away.

'The removal of pain, heat, or uneasiness in the organ or organs diseased, is the effect to be produced.

'If this can be accomplished by the abstraction of a few ounces of blood, any further depletion, at that time, will be injurious.' p. 327.

So far as our experience of blood-letting in continued fever goes, we are much inclined to corroborate the practical conclusions drawn by Dr Mills. We have not, indeed, seen it unequivocally shorten the period of the disease; but the poor seldom apply for assistance until the eighth or ninth day of the disease, when it probably no longer admits of being cut short. On the other hand, we found, that the good effects of venesection were not limited to its employment in the early stage of the disease, but were produced even when it was considerably advanced, and the state of the patient seemed to require that mode of depletion. Of its power in removing pain and uneasiness in the head, chest, or abdomen, we were perfectly satisfied; and in no instances did it produce any subsequent debility. On the contrary, the patients bled went through the disease more easily, and recovered more speedily. We had no instance of a relapse, and no imperfect recovery. As employed by ourselves, we experienced no unpleasant occurrence from general bleeding in fever, but were convinced of its advantages.

In regard to the nature of the fever in which we had recourse to it, lest it should be thought that it had a peculiar character, it is necessary to state, that it was the common continued fever which prevails in Edinburgh, more or less, almost every winter; and, in fact, the very individual disease from which Dr Cullen and Dr Brown drew their description of *typhus;* the very disease in which even the former, from exaggerated notions of impending debility, suggested so many cautions with respect to the employment of purging, and in which venesection came to be totally proscribed, in consequence of the doctrines of the latter. We shall, therefore, continue to call the disease Typhus, the appellation by which it has always been known, and only caution our readers, that we use it strict-

proper name, and that we wish altogether to disunite it
he idea of debility so long associated with it. The change
nion respecting the treatment of typhus in this place, from
the doctrine of debility spread over the world, is curious
structive. Dr Hamilton, in his excellent work on pur-
medicines, with that candour which characterizes an ho-
ole mind, gives us some information concerning the treat-
f typhus when he began to practise.

> was appointed physician to the Royal Infirmary upwards of
> years ago. At this time, the cure of typhus was thought to
> chiefly in the removal of atony and spasm of the extreme ves-
> the surface of the body. For this purpose, together with
> edicines, weak antimonials were given freely. An emetic and
> tive medicine were commonly exhibited on the first approach
> attack, but the state of the stomach and bowels was little re-
> in the after periods of fever. An alvine evacuation was occa-
> procured by a mild glyster, while purgatives were given with
> e diffidence, lest, by their operation, they should rivet the spasm
> xtreme vessels, and increase debility, one of the supposed di-
> ses of death in fever. These apprehensions may still bias the
> of many, as they certainly did bias mine for a long time.'—
> 0.

r the period Dr Hamilton alludes to, the doctrines of
acquired an ascendancy in the minds of the students;
n the most faithful disciples of Cullen relinquished their
ntimonials, and trusted for the cure of typhus almost
o the exhibition of stimuli. Opium, wine, and brandy,
lministered indiscriminately; and although it was found
y had not the desired effect of precluding the accession
lity, it was contended that they had been exhibited with
ring a hand, and that they were unable to counteract the
ting effects of some injudicious treatment, or of insuffi-
iet. These prejudices prevailed almost generally, till
hese few years; and many of those who are otherwise
onsidered as among our best practitioners, cannot even
est themselves of the fear of the debility whose destructive
hey dread in the last stage of the disease.

ually, however, the excessive and indiscriminate use of
was generally abandoned in this country, and relinquish-
he Italians and Germans, who had just received and
the principles of the Brunonian school with the wildest
sm. We have the authority of Hufeland for saying,
esection was almost struck out of the list of remedies.
ases were converted in the heads of physicians into as-
and even in universities, it was maintained in *theses*, that

there was no true inflammatory disease, and that blood-letting was useless. In Britain, the antiphlogistic treatment was introduced step by step; but it was for many years confined to the external application of cold, in the forms of a cool atmosphere, and cold affusion; and in this way the typhus mitior was treated with tolerable success. This treatment was, however, found totally inadequate to counteract the violent excitement in the yellow fever, which desolated the transatlantic world, and blood-letting was tried, first with cautious timidity, and afterwards with confidence of success, both by American and British practitioners.

About the same time, Dr Hamilton, in the Royal Infirmary of this place, was laying the basis for the general introduction of the next great improvement in the practice of fever; and it is truly gratifying to trace, in his admirable work, the steps by which he arrived at a firm conviction of the utility of a practice at direct variance with his previous opinions, and the prevalent doctrines of this school.

The typhus gravior had been introduced into Edinburgh by a diseased fleet, which arrived in 1781, and prevailed for several years afterwards.

'Having been often disappointed in promoting the cure of this fever by means of mild antimonials, which were then so much in use, I was induced, by the same views which directed the employment of these, to use the *calx antimonii nitrata, Ph. Edin. editæ, anno* 1774. I gave four or six grains of this preparation for a dose, which was repeated three or four times, at an interval of two hours, unless sweating, vomiting, or purging, were previously excited.

'I resorted to this practice towards the termination of the fever, and in the treatment of those patients only of whose recovery I was exceedingly doubtful. I entertained hopes that a favourable crisis might be procured by the efficacy of the antimonial medicine; and, in the mean time, I thought I supported the strength of my patients by the moderate use of wine.

'This antimonial remedy was not ineffectual; but I remarked, that it was beneficial only when it moved the belly. In this case, the feces were black and fetid, and generally copious. On the discharge of these, the low delirium, tremor, floccitatio, and subsultus tendinum which had prevailed, were abated; the tongue, which had been dry and furred, became moister and cleaner; and a feeble creeping pulse acquired a firmer beat.

'On reflecting afterwards on these circumstances, it appeared to me to be probable, that, as the purgative effect of the calx antimonii nitrata had been the useful one, any purgative medicine might be substituted for it, and that, by this substitution, the unnecessary debilitation of an exhausted patient, by sweating and vomiting, would be avoided.

'More extended experience confirmed these conjectures; and I was gradually encouraged to give purgative medicines during the course of typhus, from the commencement to the termination of the disease.

'I have directed a strict attention to this practice for a long time; and I am now thoroughly persuaded, that the full and regular evacuation of the bowels relieves the oppression of the stomach, cleans the loaded and parched tongue, and mitigates thirst, restlessness, and heat of surface; and that thus the later and more formidable impression on the nervous system is prevented, recovery more certainly and speedily promoted, and the danger of relapsing into the fever much diminished.'

'This practice, by means of purgative medicines, does not supersede other remedies employed to fulfil other indications, particularly the free access to pure and fresh air. I am even ready to allow, that although I exclude emetics and glysters from my general practice in typhus fever, yet particular circumstances may arise to make both the one and the other necessary.

'I cannot, however, avoid remarking, that, for many years past, I have found these other remedies, and wine in particular, to be less necessary than I formerly thought. This may be owing in part to typhus fever being less malignant than it was some time ago, and in part to the purgative medicines, which I employed with freedom, removing and obviating symptoms of debility. If this be a just view of the case, the plain inference is, that while purgative medicines preserve a regular state of the body, they do not aggravate the debilitating effects of fever.'

The good effects of purgatives were so unequivocal in the cases reported by Dr Hamilton, that practitioners no longer feared to administer them, when indicated in typhus, and the bugbear debility quickly lost half its terrors.

The success which our naval and military surgeons met with in treating fever in the tropics by venesection, naturally led them to employ it in the ardent fever of the south of Europe; and there also the practice of depletion soon became general, almost universal. Still, however, the practice was generally supposed to be only adapted to the fevers of hot climates, and the disease was held to differ essentially in its nature from the continued fever of Great Britain. But, before this time, we find that blood-letting had been very extensively and judiciously used in the treatment of what was called a remittent fever, which was observed frequently to recur among the troops in this climate. For the history of this fever we are indebted to Dr Thomas Sutton, * late physician to the forces; and we re-

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* A Practical Account of a Remittent Fever, frequently occurring among the troops in this climate. By Thomas Sutton, M. D. of the Royal College of Physicians, London. Canterbury, 1806. pp. 42.

gret that the circumstance of his having published in a provincial town, and the condensed and unpretending style of his history, should have prevented his observations from having produced the effect they ought to have done. Although he has given the name of remittent fever to the disease of which he treats, it evidently was propagated by contagion, and the remissions do not seem to have been very different from what are often observed in the beginning of the common typhus of this country, while, in every other respect, they seem to correspond perfectly; and, indeed, we are disposed to think that the good effects of blood-letting had some share in preventing him from considering it as a typhus fever, from the general opinion, that typhus would be made worse by venesection. Be this as it may, let us record the effects of the different modes of treating the disease; and, first, that which proved successful.

'Though several symptoms of typhus may appear to occur in this disease; for instance, a considerable debility and prostration of strength; the confused state of the intellect, with affection of the head; the pulse appearing, at times, quick, feeble, and intermitting, &c.; yet, upon a further view of the subject, there are many circumstances which differ from the last-mentioned disease, in this fever. The pain in the head is more violent and intolerable; a cough and affection of the chest may, in most cases, by a minute investigation, be discovered; the tongue, though not in all, is early, in most of the cases, much coated, and its sides and extremities exhibit a considerable inflammatory redness; the delirium is of a violent kind; the heat of the skin, in the paroxysms, is often intense, the pains in the back and limbs very great, and the disease mostly comes on with considerable rigors.

'With this train of symptoms, venesection has been found the most effectual means of mitigating the sufferings of the patient, and the most prompt and decisive remedy for arresting the progress of the disease.

'The quantity of blood to be taken away, should seldom be less than twelve ounces, nor should often exceed twenty-four, except in very urgent cases; nor should the cure be trusted to one or two venesections, but the lancet should be employed once or twice a day, according to the urgency of the case, until a considerable amelioration of symptoms takes place.

'The signs of amendment will be a mitigation of the pains in the head, body and limbs, and a relief of the pectoral symptoms, while the tongue acquires a natural appearance; but if it remains coated and red as described, though the symptoms seem to have given way, it often happens, that they return with considerable violence. For these appearances of the tongue indicate, that the inflammatory tendency in the habit remains as yet in a considerable degree. It will be often prudent, therefore, in such cases, to draw away blood in a moderate quantity, though no other symptom seems to demand it.'—pp. 18—20.

'When the tongue in fever cases becomes brown, it is by some deemed an act of temerity to draw blood, as this appearance is supposed to indicate a fever of the typhus kind, or an approach to it. The following cases of the disease will prove, that this appearance should not always dissuade from blood-letting. On the fifth day of the fever, after *four venesections*, *three* to the extent of *twelve ounces* each, and one to *fifteen ounces*, the patient was in the following state: —his tongue rather brown; nausea and vomiting; skin very hot; delirium; breathing short; pulse 120; expressed himself free from pain. In this state, blood was drawn to *thirty ounces*. On the following day the report was, blood buffy; pulse soft; tongue moist, and not so brown; skin cool; vomiting abated. The patient, in five days after this period, was in a state of convalescence.—In another case, pulse contracted; tongue rather brown; delirium. The patient was bled to *fourteen ounces*. On the next day the blood was tough; the delirium abated; the patient finally recovered. In another case, on the fifth day of the disease, the tongue appeared brown and dry; the pulse 120, very full; great pain in the head; breathing short; slight cough; the patient felt faint and very debilitated upon rising; blood was directed to be drawn to *thirty ounces*. In the course of a few hours the report was, blood very buffy; pulse softer, but still full; breathing easier. This patient was afterwards repeatedly bled, and recovered.'—p. 24, 25.

We have now to state the effects of an opposite treatment.

'When the disease is treated as typhus, and recourse is early had to wine, opium, bark, camphire, and other stimulants, the following appearances generally occur:—In a short time stupor and delirium come on; the tongue becomes brown and dry; is protruded with difficulty, and remains out of the mouth of the patient with a seeming unconsciousness of the circumstance, or is withdrawn with a sort of trembling involuntary effort. In a few days the teeth are covered with a black sordes, and the tongue with a black fur, or pellicle; the eyes become muddy and watery; the countenance vacant; the remissions of fever less perceptible; the delirium or stupor unabated, or increased; the pulse is now quick, but, in such as recover, seldom exceeds 120; the skin, in these cases, is hot, and for the most part dry and harsh. though, in some, partial, and in others profuse sweats break out without relief. Under such circumstances, patients seldom complain of pain, or uneasy sensations: though, during the night-exacerbations, there is great restlessness, and high delirium. With this treatment, symptoms of amendment seldom appear before the end of the second week, and are often slower in their approach. They are generally introduced by some refreshing sleep; when the skin becomes soft and moist, the tongue puts off its dark appearance, and is for some days covered with a ropy secretion, or appears creased and sodden: the stupor, delirium, and fever gradually recede, and some appetite for food begins to appear. After a sleepiness, for some days, the natural sensations are, in a degree, restored, though the progress to a perfect recovery is slow, and the health of many is never entirely re-established. But when the disease ends fatally under this treatment, except when death happens, as before-mentioned, in an early stage of the fever, the affections of the brain increase to a total insensibility; the pulse becomes very quick, small, and fluttering; the discharges of urine and feces are involuntary; the eyes sunk and dim; profuse colliquative sweats come on; petechiæ are, sometimes, observed; deglutition becomes difficult, or impracticable, which, with a distressing hiccough, closes the scene. Sometimes, upon convalescence, under this treatment, a troublesome cough comes on, and is accompanied, in some cases, by a purulent expectoration. In this mode of treating the disease, the cough seems to be often much suppressed, until convalescence takes place.' p. 10–12.

The comparative success of the different modes of treatment are thus summed up,

'In one instance of the occurrence of this disease, when treated as Typhus, out of thirty-seven patients received into the hospital eleven died.

'In another, where the same treatment was pursued upon a moderated plan, (that is to say, without pressing the use of the bark, opium, wine, &c. in the early stage of the disease), out of ninety-two patients eighteen died.

'In another, in which the case was treated as Synochus, where moderate bleeding and evacuants were employed in the beginning of the disease, and the usual remedies for typhus were afterwards resorted to, the mortality was upon the average of three in twenty.

'By the treatment in which venesection has been relied on as a principal remedy, the greatest average of deaths, in any of the instances in which that plan of cure has been adopted, does not exceed one in twenty.

'In the above cited examples of the comparative fatality of this fever, the disease in each appeared to be in an aggravated form, and, so far as could be perceived, the cases were equal in violence. Under each method of cure, therefore, at many times when this fever occurs, the mortality may be much less considerable.' p. 16, 17.

These observations, and we do not apologize for the length of the quotation, are the result of Dr Sutton's practice in the military hospital at Deal during 1799, 1800, and 1801; but he had previously employed it in Holland in 1794, and at Hilsea barracks in 1796 and 1797. We have glady taken this opportunity of doing justice to Dr Sutton, as being, so far as we know, the first who dared to deviate from the routine practice which had resulted from an erroneous hypothesis.

At the same time that Dr Sutton gave a practical demonstration of the utility of blood-letting in the cure of general fevers, even in these climates, Dr Clutterbuck, in his valuable work on fever, recommended the same practice on theoretical grounds, and he was more fortunate in making a considerable impression on the profession: But as his doctrines were not accompanied with the practical support they would have received from Dr Sutton's experience, had it been generally known, they were strongly combated by our best systematic writers, and, till lately, acted upon very partially and timidly. Mr Stevenson,* surgeon of the 3d Lancashire militia, used large and repeated bleedings in the treatment of the sick landed at Plymouth from Corunna in the beginning of 1809, and Dr Burnet† treated with equal boldness the prisoners brought to England about the same time. In 1812, 1813, and 1814, Dr Dickson, ‡ who had formerly contributed so much to the extension of the depleting treatment in the Antilles, experienced similar success from the employment of purgatives and blood-letting, in the severe fever which prevailed in the Russian fleet then on our coast.

The experience thus derived, however, although abundantly extensive, was considered to be attended with such peculiarities as not to warrant the employment of the same active measures in the common continued fever of this country. Previous to the publication of Dr Mills's first edition, Mr Muir § had made known the good effects he derived from it in a fever which prevailed in the suburbs of Paisley in the first months of 1811; but he seems to have used it only when the crisis was imperfect, and the convalescence slow. Dr Mills did not publish till 1813; but he employed the practice extensively in the summer and autumn of 1810. Since that time, the practice seems to have gained ground in Dublin. The cases in the Supplement to the second edition of his work, were treated in private by different practitioners; and we find, from the very candid and judicious report of the fever hospital for the year 1815, drawn up by Dr Richard Grattan, that other physicians of that extensive establishment have, to a certain degree, adopted the practice of bleeding.

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* Account of the disease of the sick landed at Plymouth from Corunna, by Richard Hooper, Esq. Edinburgh Medical and Surgical Journal, Vol. V. p. 408, 1809.

† Observations on the fever which appeared in the army from Spain, in their return to this country in January 1809, by James M'Grigor, M.D. Inspector of Hospitals. Edinburgh Medical and Surgical Journal, Vol. VI. p. 26.

‡ Edinburgh Medical and Surgical Journal, Vol. XII. p. 158.

§ Edinburgh Medical and Surgical Journal, Vol. VIII. p. 134.

‘ With respect to the practice of the last year, the fevers which prevailed during the first three months, were marked by an increased action of the brain, and frequently attended with violent delirium. In such cases, the face was tumid and flushed, the eyes were red, there existed great intolerance of light, and considerable throbbing of the temporal and carotid arteries. When the symptoms had been neglected, the disease proved extremely fatal, and generally seemed to terminate by effusion in the ventricles of the brain. In cases of fatal termination, this event was indicated by stupor, dilatation of the pupils, low muttering, and other appearances of coma. When such were the symptoms, wine, bark, and opium, remedies once so celebrated in the treatment of fever, were altogether inadmissible, at least in the commencement of the disease; and even towards its conclusion required to be administered with the greatest caution.

‘ The plan which experience proved to be most successful, consisted in moderating the violent action of the brain, by means of the various antiphlogistic remedies; but more particularly by topical blood-letting. When the excitement was considerable, the head was uniformly directed to be shaved, and repeatedly washed with cold vinegar and water. Leeches were applied to the temples; and, if they failed to afford relief, the temporal artery was opened, and blood taken to the extent of from four to six ounces. By these means the local excitement was diminished, the symptoms became less violent, and the patient gradually recovered; whereas, had he been stimulated by spirituous or heating medicines, his danger would have been increased, in the exact proportion of the means that were used, with a view to insure his recovery.

‘ Theory has at all times exerted a most pernicious influence over medicine; and probably a greater number of individuals have fallen a sacrifice to the many prejudices of which it is productive, than have at any time recovered, in consequence of the advantages that it affords. Indeed, of this I am persuaded, when I consider the practice of the present day, and compare it with that which prevailed at no distant period. Many of the cases for which it was necessary to prescribe blood-letting, in order to moderate the increased action of the vascular system, were cases of petechial or spotted fever. Even in our own memory, the appearance of petechiæ was considered a symptom of the most alarming kind, and one which indicated the utmost debility. Wine and bark were therefore given in the greatest possible quantity, under the conviction, that they were absolutely necessary to support the patient's strength, and obviate the effects of putrescency.

‘ Fortunately, however, the treatment of fever is now better understood, and a more rational, and infinitely more successful mode of practice, is adopted. Wine and bark are no longer considered essential to its cure; and, in their place, remedies of quite an opposite nature are administered with the most decided advantage. But, what has most of all contributed to diminish the mortality of fever, is the introduction of blood-letting, which was, until of late, with so little reason, so much dreaded and so universally censured; though, at the same time, it is to be acknowledged, that there is no remedy which is more frequently abused, or which, in fever especially, is capable of producing more destructive consequences when injudiciously employed.

'Of this, I had an opportunity of observing a striking instance, in the case of a man, who had been blooded to the extent of eight ounces, without appearing at the time to suffer any inconvenience. In the course of two days, however, he complained of a pain in his arm; the puncture of the lancet had become inflamed; it soon assumed a gangrenous appearance; and, notwithstanding every effort to arrest its progress, the mortification continued to spread, until it included the entire arm from the shoulder down to the fingers, and even a great proportion of the side, when the patient, worn out by his sufferings, at length expired.

'It appears to me, that the author of the blood-letting system has pushed his practice to an unnecessary extent, and recommends it too generally; which may perhaps be accounted for on the principle, that most persons who have suggested any scientific improvement are naturally inclined to attach to it more importance than it really deserves, the interest that they take in its success, rendering them anxious to extol it to the utmost. Hence, also, it sometimes happens, that their anxiety defeats the very object that they have in view; for, by promising too much, they disappoint the expectations of those who adopt their system, which, therefore, though useful to a certain extent, soon falls into disrepute, and is neglected altogether.

'It is probable, that such has already been the case even with this particular remedy; for the practice of blood-letting in fever has no claim whatever to the merit of originality. It is a fact, that this remedy was employed nearly two centuries ago, precisely in the same way, and in cases exactly similar to those in which it is used at the present day. In Riverius's Practice of Medicine, there is an account of the treatment of a fever termed '*Febris Continua et Maligna*,' in which the patient was blooded repeatedly in the manner recommended by the author of the essay, and eventually recovered.

'Blood-letting in fever is therefore a remedy, which, having been once perhaps generally practised, was afterwards neglected, probably in consequence of its being abused, and is again revived. But although it must ever be abused, in the hands of injudicious persons, yet surely this circumstance should not be considered an objection to it, nor should it on that account be less employed by practitioners in cases where it is clearly indicated. For this would be, indeed, to run into the opposise extreme, and verify the adage, of falling into Scylla, by endeavouring to avoid the dangers of Charybdis.

'Practitioners formerly erred much with respect to blood-letting in the treatment of fever; for they either obstinately refused to bleed, or, if the symptoms were so urgent as to admit of no other remedy, they generally blooded to excess. But as the injurious effects from excessive blood-letting were for the most part obvious, while patients who had not been blooded occasionally recovered, the depleting system came into disrepute, and the stimulating practice was adopted.

'It is fortunate for the present time, that we now clearly perceive the advantage of pursuing a middle course; for I am convinced that there is not in medicine a maxim of greater practical utility than this: when symptoms require blood-letting, bleed, but bleed *moderately*. And in this, I think, consists the entire merit of the system alluded to, that it has directed our attention to an active and a useful remedy, which our predecessors were prevented from employing, by the influence of ill-founded apprehensions resulting from erroneous opinions with respect to its mode of action, and the nature of the effects that it produces.' p. 33—36.

We may take any other opportunity of making some further extracts from the very valuable annual reports of the Managing Committee of the House of Recovery and Fever Hospital in Cork-Street, Dublin; but we cannot take this opportunity of recommending them to general notice, as worthy of imitation by public hospitals in general, whose reports commonly convey no *medical* information whatever.

II.

Ueber die Kriegspest alter und neuer Zeit mit besonderer Rücksight auf die Epidemie des Jahrs 1813 *in Teutschland.* Von D. CHRIST. WILH. HUFELAND, Königl. Preuss. Staatsrath, Leibarzt, und Professor der Medecin auf der Universität zu Berlin. Berlin, 1814. pp. 136.

Ueber den Ansteckenden Typhus, nebst Einigen Winken zür Beschränkung oder gänzlichen Tilgung der Kriegspest, und meh-

rerer anderer Menschenseuchen. Von JOH. VAL. EDLER VON HILDENBRAND, Kaiserl. Konigl. Rath, &c. &c. Wien, 1810. pp. 310.

Medizinische Geschichte der Belagerung und Einnahme der Festung Torgau, und Beschreibung der Epidemie, welche daselbst in den Jahren 1813 *und* 1814 *herrschte.* Von Dr GEORG AUGUST RICHTER, Königlich-Preussischem Oberstaabsarzt. Berlin, 1814. pp. 152.

IT is singular and instructive, that a similar revolution, to what we have noticed in the preceding article, but greater in degree, should have been taking place in Germany nearly at the same time; for although we undoubtedly preceded our Continental brethren in relinquishing the improper exhibition of stimuli, their change of opinion seems to have been entirely owing to their own observation, and their dreadfully extensive experience, acquired in the febrile diseases which have afflicted Germany, since its first invasion by the French.

The history of this change of opinion, and of the various epidemics during which it took place, has been detailed with great spirit and candour by the veteran Hufeland, in the essay lying before us.

'The antiphlogistic method, and especially blood-letting, now (in 1814) begins to be as prevalent as the tonic and stimulant plan was ten years ago; and it cannot be denied, that it has often been very serviceable in the present epidemic of typhous fever. Much as the rational physician must rejoice in this change, and much as he must feel indebted to those who gave the first impulse to it, there is but too much reason to fear, that the mass of medical men who do not think for themselves, but servilely follow their leaders, will soon commit the same abuses with blood-letting that they not long ago committed with opium. It is also very natural, that the scientific physician should ask himself,—Is it possible, that the true nature of typhus has been so long mistaken? Is it actually, and has it always been, an inflammatory affection of the brain? And if this be the case, how did it happen, that, ten years ago, it was successfully treated with wine and opium, and now is treated with equal success with venesection and nitre?—How can it be, that the same disease should be successfully treated by means so diametrically opposite?'

It is these questions which Hufeland proposes to answer; and he finds their solution in a cycle, through which he imagines medical opinion has always revolved, but with a constantly accelerating velocity; and, to prove this, he sketches rapidly the history of his subject.

'A life is now sufficient to witness the revolution of a thousand years in former ages, and it is enough to have practised medicine for thirty years, to have survived the history of our art for whole centuries in past times. I appeal to the testimony of my contemporaries, and I myself can come forward as a witness.' He still recollects perfectly the treatment of fever by his father and grandfather, both physicians of Hoffmann's Hippocratic school, who treated all acute fevers in the beginning according to the antiphlogistic method, and always let blood in the beginning, in plethoric patients, or where the head or breast suffered, and only had recourse to the prudent use of stimuli, when the antiphlogistic plan did not succeed, or signs of debility, or as it was then called malignity, appeared. As this plan was successful, Hufeland adopted it; but, being educated by Stoll and Richter, he combined with it the doctrine of gastricism; but he says he recollects well the great abuse of blood-letting by barbers and ignorant practitioners, when, in the beginning of his practical career, he was consulted in cases of pleurisy and frenzy, which had been obviously made worse, or even fatal, by untimely or too frequent bleeding, and was thus convinced of the truth of the doctrines he received from his teachers, that there are kinds of these local febrile affections in which venesection is not useful, but hurtful. He has lived to see the gastric and the Brunonian periods pass away, and now he can almost imagine, from the thoughtless manner in which venesection is again employed, according to the name of diseases, without regard to the individual, the state of the pulse, or circumstances, that he is carried back to the earliest period of his professional career.

In further corroboration of these opinions, he sketches, with a masterly hand, the history of opinions in regard to fever in general, nervous fever, and the fever attendant upon armies and war. In a treatise which he published in 1799 on nervous fever, Hufeland stated, as the result of his experience, that it admitted of complications with inflammatory fever, even with true active inflammation, which required blood-letting, both local and general, even to permit afterwards the more liberal use of stimuli. But the stream of the Brunonian doctrine then carried all before it. Every thing was debility, nothing but debility;—and even with the strongest indications for venesection, it was omitted from fear of debility; instead of which, the simplest fever was aggravated by the irrational use of opium into nervous and even putrid fever. At last, the voice of nature and common sense succeeded in recommending the antiphlogistic method. Stieglitz treated in this way scarlatina, and Hildenbrand typhus; and, afterwards, Marcus contributed especially to the introduction of venesection into the treatment of typhus.

Fever has, in all ages, been the attendant upon war. In the earliest records of history, we hear of whole armies being suddenly cut off by disease; the less accurate descriptions of the classics may be passed over to sketch the pestilential fevers which have occurred during the last centuries.

In 1516, we find that, after a severe war which Maximilian II. waged against the Turks in Hungary, a most dreadful epidemic arose, which not only afflicted his army, but laid all Germany waste. It was a putrid petechial fever, with colliquative sweats, and was called the Febris Ungarica. Even Cullen, who has classed the Morbus or Febris Hungarica among the remittent fevers, admits that the epidemic which began in the army in Hungary, and was spread by the soldiers returning from thence all over Germany, was a continued fever, and nearly the same with that which is well known to arise in military hospitals.—*(Cullen's Nosology, note to Typhus gravior.)*

In 1683, a similar pestilential disease followed another war in Hungary, and has been described by Fr. Hoffmann. It was attended with the greatest languor, violent headach, vertigo, quickly succeeded by delirium, sopor and petechiæ, as chief symptoms. The alexipharmaca, then in use, aggravated the disease, and gave it a fatal tendency; and Hoffmann found greatest advantage from refrigerant acids, and his bezoar powder, consisting of absorbents, nitre, and a little camphor, also vinegar, elder rob, and spiritus nitri diluted with water. He bled plethoric individuals at the commencement, and as a preservative, with the greatest advantage.

The French war in 1740 and 1750 again generated a pestilence, with which the masterly description of Pringle has made us well acquainted. Blood-letting was observed to be hurtful in this epidemic.

The seven-years' war excited it once more. Baldinger treated it successfully without venesection, at first with emetics and purgatives, then with acids, spiritus mindereri, which he praised highly, camphor and blisters, and lastly with cinchona and serpentaria. Frederic the Great, whose piercing eye nothing escaped, and who was so much interested in the effects of the disease, has described it thus,

'Even the desolation caused by the war, in seven great battles, did not at all equal that produced by the contagious disease in the hospital. It was a kind of ardent fever, which was accompanied with all the characters of the plague. The patients in the first day of the disease, became delirious, and got boils in the neck and under the armpits. It was of no consequence whether the physicians bled or not. Death carried off all who were attacked with the disease, and the poison was so violent, its progress so quick, and its effects so sudden, that it proved fatal in three days. All kinds of remedies were tried in vain. At last vomiting was had recourse to, and that succeeded. Three grains of an emetic were dissolved in a measure of water, and given to the patient to drink until it began to operate. This proved a specific against the disease; and after it was had recourse to, scarcely three of the hundred of those affected, died.'

From the commencement of the French revolution, the beginning of a state of war among the European nations of twenty years' duration, several epidemics have followed each other. In the first ten years they prevailed more in the south of Germany and in Italy, which was then the seat of the war. But it was once carried, by the transport of prisoners, to Magdeburg, though only for a short time, and confined to the places of Saxony and Bradenburg, through which they passed. Its phenomena were nearly alike; its character nervous and asthenic, and its treatment corresponding. It is best described by Larrey, as it occurred in the Austro-Prussian campaign of 1803. He calls it, in Pinel's new French nomenclature, *Fievre adynamico-ataxique*. Bleeding, to which the French physicians were so much disposed by habit, was said to be always hurtful.

In the first Prussian war of 1806-7, it broke out, in a dreadful degree, in Prussia and Poland, the seat of the war. It was generated by a most severe winter campaign, weather perpetually moist, hunger, want, and misery. Hufeland lived in the midst of it, observed it minutely, and described it accurately. Its phenomena were, from the very commencement, the greatest degree of debility, stupor, trembling, speedy delirium, coma, rapid sinking of the pulse, temperature of the skin rather pungent, often natural, subsultus, spasms of all kinds, and especially, and as the most peculiar symptom of the epidemic, diarrhœa from the commencement, with a continual tendency to colliquative purging. In its higher degree, there were all the symptoms of the most pestilential fever, colliquation and gangrene. Death took place from the 7th to the 18th day. Perhaps this was the cause that fewer petechiæ appeared, and that in general this disease lost all tendency to inflammation. Hufeland's treatment was purely stimulant and tonic. Acids could not be given on account of the diarrhœa; but, for this very reason, and to support the strength, opium was of the greatest service. The most violent delirium, stupor, frequency of the pulse, were instantly reduced by wine, opium, and other stimulants. It was astonishing, how, after a few glasses of generous wine, the pulse instantly became slower and fuller; and the patient, from a state of total insensibility, recovered and spoke rationally, while, on the contrary, every new discharge from the bowels increased the sopor, the subsultus, and smallness and quickness of the pulse. In such a state, no rational physician could venture upon bleeding. Hufeland avoided it, even when the head was most violently affected, and in young plethoric soldiers, who had not been attacked in consequence of hardships, but had derived it from contagion.

It was at this period that *Hildenbrand*, Professor of Vienna, published his classical work on contagious typhus, so valuable in every point of view; but we refer to it at present chiefly to quote some of his remarks on the fluctuating acceptation of the term Typhus, in various ages, and in various schools, which has been productive of much confusion and error. It is the more necessary to take notice of it at this time, when the meaning of the term Typhus is undergoing among ourselves a total change, and will soon be entirely disconnected with the idea of debility, which has so long been considered to constitute the very essence of the form of fever which it was employed to designate.

The word, or name, *Typhus* (Τύφος, or, according to some, τύφλὸς), is derived from the earliest Greeks. It properly means Stupor and *Febris typhodes*; Τυφώδης πυρετὸς could, in this sense, be nothing else than a fever in which stupor was a prominent symptom. In Hippocrates, typhus means insensibility, or dulness of the senses. 'Τύφος' says Foësius, '*apud* Hippocratem *dicitur stupor attonitus, cum quis mutus aut attonitus considet.*' Galen theoretically considered *Febris typhodes* as *Febris continua et ardens, sed symptomatica et a jecinoris erysipelate excitata*. He, however, kept in view the essential symptom to which he gave the name of *Typhomania*; *affectus ex phrenitide et lethargo mixtus, in quo delirant ægri, et somniculoso torquentur comate, ex bilis et pituitæ permixtione.* Galen's opinions led, however, to the almost total neglect of the substantial phenomenon of stupor, and directed the attention of his followers exclusively to the liver and bile, as the chief consideration in typhous fever. *Prosper Alpinus* says, '*Febres exterius mites, intus conturbantes Græci* typhodes *appellant.*' The humoral pathologists relinquished the term altogether, and denominated these fevers, from the supposed predominant affection of the humours, or from their origin, but lost all sight of their individual and substantial character. This was, in some degree, repaired by Sauvages, who attempted a divison of fevers, according to their

symptoms. *Typhus*, fievre maligne, *decursus ad tres septimanas et ultra, pyrexia nulla, aut exigua, debilitas maxima.* In his observations, he points out its essential symptoms *sub bona, quoad calorem, pulsum, et urinam, specie clam ægro insidietur et symptomata gravissima, ut soporem, delirium, cardialgias, convulsiones inducat subito, cum initio mitis et sine periculo visa fuit.* Cullen, in his Nosology, borrowed his definition from Sauvages; but, in his First Lines, uses Typhus to express not an individual species of fever, but as a generic denomination of several species, ' little studious whether their names be authorized by the ancient use of the same terms. ' It is superfluous to trace this subject any further. It appears that most physicians agree in considering, that debility constitutes the essential and general character of typhus, but that, in the beginning of the seventeenth century, *Febres biliosæ, nervosæ, malignæ, putridæ, petechiales, nosocomiales, carcerales, castrenses,* and *typhi*, were almost all confounded, without discrimination; and, lately, all these fevers have been included under the denomination of *Febris asthenica ;* nay, even the term Typhus, which indicates a species, has been improperly raised to the rank of a genus, with great disadvantage, both in a diagnostic and therapeutic view. Professor Hildenbrand, therefore, to prevent all controversy about terms, says, that his work treats solely of contagious typhus, *—of that typhus which propagates itself by a specific miasma, evolved by itself in the human body,—which is everywhere and always essentially the same, as it arises from a substantial and uniform miasma, —which lastly alone perfectly corresponds with the title, as it possesses the peculiar character expressed by it. He then explains, that he considers it as an individual species of fever, which is uniform in its essential symptoms, capable of producing, by contagion, its like in persons in health, and predisposed to its action; which belongs to the family of exanthematic fevers, on account of the determinate rash which attends it, resembling, in this respect, most contagious fevers; which runs its peculiar course in certain determinate stages; which admits of a certain variety of character, having, as its only specific symptom, in all its stages, *typhomania*, or delirium, mixed with stupor; whose whole essence indicates a more or less obvious affection of the liver ; lastly, a fever which, in itself, is not essentially either an inflammatory, a nervous, or a putrid fever, but often assumes all these characters.

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* Hildenbrand admits also the existence of an original typhus generated by a concurrence of circumstances ; but maintains, that the typhus thus generated is capable of propagating itself by contagion.

The preceding determination of the essential character of typhus is, in some respects, objectionable, especially in regard to the constant affection of the liver; but, in the main, the idea appears to us correct, that typhus is an individual disease, and that it has an essential character, distinguishing it from other fevers, and independent of excitement or debility, and of inflammatory or nervous diathesis.

We cannot enter here into an examination of Hildenbrand's work; but merely in reference to a notice of his observations on the use of blood-letting, we may mention, that he divides the course of typhus into no less than eight stages, some of which, however, are rather the limits of stages, than stages, properly so called. Between the infection being received, and the proper invasion of the disease, there is a period of uncertain length, which may be called the precursory stage, in which there is only slight indisposition; and this is the only period during which Hildenbrand thinks the disease may be cut short: 'After this, the patient comes within the domain of the fever, from which there is no escape, except by the way of a crisis.' The fever commences with a stage of seven days, to which he gives the name of *Inflammatory*. 'During this stage, there is no real or true debility of the vital functions. They are rather excited, excessive, or, at the utmost, oppressed. The symptoms are those of inflammatory fever. All contagious fevers, all contagious diseases, without exception, exhibit, in their commencement, this inflammatory character. The treatment proves it. Every stimulus is hurtful; the cool regimen, on the contrary, extremely beneficial.' The next seven days, that is, from the seventh to the fourteenth, are occupied by the nervous stage. This, in the regular form of the disease, is succeeded by a crisis, and the decrease of the fever, and then the convalescence begins. This regular progress of the disease is, however, interfered with by many causes, chiefly depending on the constitution of the person affected, the constitution of the epidemic, and accessory hurtful circumstances. Hildenbrand's opinion of the effects of venesection in typhus, is summed up in the following sentences.

In many, certainly the greatest number of cases of contagious typhus, bleeding is a hurtful remedy, not only in the nervous stage, in which all physicians will agree, but also in the inflammatory stage, so long as the inflammatory character is moderate or insignificant, and the individual is weak and bloodless. By it the patient is injuriously debilitated,—the wholesome operations of life are disturbed or repressed, and the nervous character of the next stage, in which without it the powers begin to sink, aggravated. When death is not caused by it, the whole course of the disease is lengthened, and the crisis and the convalescence much postponed.

Sometimes, and especially in a slight and regular typhus, occurring in a strong and plethoric person, bleeding is an indifferent, and therefore superfluous remedy.

But, lastly, blood-letting may often be a requisite and beneficial remedy in typhus, especially in its inflammatory stage; never indeed when the course of the disease is slight, but when the aggravated inflammatory character, and especially dangerous local inflammations, indispensably demand it. Indeed, when, in such cases, this great and only remedy is neglected, the local inflammations have an unfortunate termination, the long oppressed and unrelieved powers are exhausted, and the nervous stage becomes in every respect more dangerous.

The last war fever broke out in the French and Prussian army in the dreadful winter campaign of the year 1812-1813. It had most resemblance with that described by Hoffman and Pringle, less so with that of 1803, and still less with that of 1807; for, upon the whole, it attacked the head and nervous system more than the assimilative system; and diarrhœa and wasting, which performed so great a part in the preceding epidemic, were wanting, as it occurred in Prussia; and, upon the whole, there was more tendency to inflammation, especially of the brain and sometimes of the lungs, than to putrescent disorganization.

It was in December 1812, and January 1813, that the miserable remains of that immense French army, which shortly before had bid defiance to the whole world, but now almost destroyed by cold, hunger, and misery, reappeared on the frontiers of Prussia. More dead than alive, debilitated in the extreme, emaciated, physically and morally depressed, partly with frost-bit limbs, the former conquerors of the world first appeared in Lithuania and Silesia. Never has the world seen such a mass of human misery collected in one place, and never were its effects so dreadfully felt. Not disease; this expression, says Hufeland, is too weak,—but it was the agonies of human nature in death that we observed in most of them. They sunk down with general trembling, total exhaustion of power, failure of the mind and nervous system, death of the skin, with fever, petechiæ and colliquative diarrhœa; and, it might be said, that few who witnessed the burning of Moscow, returned without carrying in their bodies the seeds of death.

Of the disease as it occurred in Torgau, the monography of G. A. Richter is admirable.

The disease was first brought into the fortress by some of the deplorable French fugitives, who returned from their disastrous campaign in Russia. It began in the middle of January 1813, and prevailed with considerable severity during the whole of April and part of May, and had nearly disappeared by the end of the month, after carrying off many of the inhabitants and garrison. The latter consisted of 10,000 Saxons under General Thielmann; of whom died in April, 154, in May 204, and in June 76. But this epidemic was not characterized by any remarkable malignity, and had, like the fever which prevailed in all Germany, in the opinion of the practical physicians in Torgau, more a tendency to inflammation, and was frequently complicated with evident inflammatory affection of the brain.

But when the Saxon garrison was withdrawn to make way for a large body of French, immediately a much more malignant epidemic arrived with them, which increased as their numbers were increased. The garrison consisted of the worst description of troops, few regularly embodied, but made up of the united depots of what was then called the grand army; all the reconvalescents from the various hospitals, who were unable to return to duty, and who were formed into provisional regiments. There was also a host of *employés* and followers, who were quartered on the citizens, and crowded the place, of only 5000 inhabitants, very much. At last, all the hospitals of Dresden and the neighbouring country were moved into Torgau, and the events of the war prevented them from being removed further into the interior. Almost the whole public buildings were converted into hospitals, and were still insufficient to contain the sick, amounting to 6000; and at last the inhabitants of whole streets were driven out of their houses to make way for the sick. Even at this time, in all these hospitals, there raged a malignant putrid typhus, which committed great devastations; at least one-third of those affected died, and many of the French physicians and surgeons fell a sacrifice to their duty; but the inhabitants remained tolerably free from disease.

Matters were in this state, when, after the battle of Donnewitz, on the 6th September, the head quarters of the 3d and 7th *corps d'armée* was moved into the fortress, accompanied by many other fugitives; and, almost at the same time, the principal head quarters of the French arrived from Dresden, by which event, at least 10,000 men and 5000 horses, were suddenly thrown into this small town, and the Prussians besieged it closely. The consequences may be easily conceived;—Torgau resembled one great hospital filled to excess with sick.

The proper hospitals were in a dreadful state. They could scarcely contain the number of sick, which now amounted at least to 12,000. These miserable wretches were obliged to be so crowded together, that they almost touched each other, and were without the most necessary supplies of straw for beds, food, medicine, and attendance. But the greatest evil was the want of arrangement and superintendence. The patients lay buried in their own filth, and rotted when still alive. The dead were left for days in the same bed with the living; and the nurses, instead of giving assistance, were employed in robbing the helpless. It was natural, that, in such a place, the slightest wound, or most trifling complaint, proved fatal; and it was almost pronouncing sentence of death to send a patient into the hospital. No wonder that the mortality exceeded all belief, for in November 8000 perished.

Until the beginning of December the number of the sick increased; and in the hospitals alone 300 died daily. Their numbers then began to diminish, owing to all the natives of Germany being permitted to leave the place; and to so large a number having already passed through the disease; but the proportionate mortality was as great as ever. The inhabitants, too, were now getting more room, on account of the great destruction of the horses for food or otherwise.

In the beginning of January it declined more obviously; and the weather, which had hitherto been warm and moist, now grew cold and frosty; and on the 10th of the month, the fortress was delivered up, when the number of sick consisted of 63 officers, and 3133 privates. According to the reports, which, however, were not complete, there died in

	French.	Saxon.	Citizens.	
Sept. -	1107	64	43	1214
Oct. -	4803	36	66	4905
Nov. -	8000	3	228	8440
Dec. -	4886		258	5144
Jan. 10.	649		83	732
	———	19,757	680	20,435 in all.

But there is little doubt that a much larger number perished, not less than 29,000 or 30,000 of the French army in four months and a half; of whom about one-third died of typhus, the other three-fourths of a colliquative diarrhœa, resembling dysentery.

To prevent the communication of the disease to the besieging army, a kind of quarantine institution was formed, and it was successful; for, during the siege, not many of the besiegers were attacked with typhus, and those more from fatigue and the deprivations of a winter siege, than contagion. In the neighbouring villages, typhus appeared only sporadically, and was not malignant; and there was no instance known of the disease having been communicated by contagion by any one who had passed quarantine.

After the surrender of the town, every precaution was taken to prevent the communication of the contagion by the prisoners during their march through Saxony; and to the neighbouring villages, by the access of their inhabitants into the fortress. In the latter not altogether successfully; for the disease now broke out in several neighbouring places, especially in Rosenfelde, where it caused dreadful devastation.

In a place such as Torgau, where the very air of the streets was pestilential, it is difficult to prove the agency of contagion, so that it cannot be doubted; yet daily experience showed how quickly it was communicated to the wounded in the hospitals, and to the stoutest and healthiest people, nurses and medical men who handled the sick. In the town the disease proceeded from street to street, from house to house, and from one individual to another in the same family; but, after the surrender of the place, the examples of its communication by contagion to the peasants of the neighbouring villages were infinite, and, in some cases, it broke out immediately after putting on a shirt, coat or pantaloons, which had belonged to a French soldier.

In this epidemic, inflammatory symptoms appeared only as a rare exception from the general rule, in such a degree as to require bleeding general or local. If it was employed in the ordinary cases, it did manifest injury, by weakening the powers too much, and might even contribute to a more early and violent accession of the nervoso-putrid period of the typhus. Even spontaneous bleeding at the nose, which was very frequent after the third day of the disease, and which produced some transient relief, especially of the headach, was frequently too much, and then was followed by a violent putrido-nervous stage, only too often terminating in death, and therefore required to be restrained with great attention.

In a few cases in private practice, the typhus began with such remarkable impetuosity, especially with such an immoderate turgescence, the pulse full and hard, raging delirium, and other symptoms of a violent synocha, that general bleeding was necessary to be employed against it, when the blood drawn always exhibited a distinct and strong inflammatory character. In this case, immediately after the bleeding, the violence of the disease remitted, the delirium disappeared, or became more moderate, and especially the nervoso-putrid stage did not proceed with that severity which was invariably the case, when, with very conspicuous inflammatory symptoms, bleeding was either taken away was determined by the intensity of the symptoms, the bodily constitution of the patient, the general epidemic constitution of the atmosphere, and the patient bearing it well. If he found himself relieved while the blood flowed, and the strength did not begin soon to sink; if the pulse at first became even fuller and harder, and not quickly smaller and softer, more blood might be taken away; but, if the patient became very soon extremely weak, and pale, almost fainted, and the pulse sunk quickly, then the arm had to be immediately tied up. It was seldom necessary to draw more than eight ounces of blood, and venesection never required to be repeated, on account of the general inflammatory state, but only for local inflammation.

At first this disease only existed in the places to which these wretched beings came, but it gradually extended from one place to another, and at last often reached, after three or four reproductions, even distant spots. But many places remained free from it, either on account of the judicious precautions taken, or something favourable in the situation; and it is particular and remarkable, as a proof of the contagious nature of the disease, that the fortress Custrin, which was closely blockaded during the whole year 1813, remained perfectly free, although the whole surrounding country and the besieging army suffered severely. The Russian army which followed the French suffering under the same disease, brought it again and again; and the carrying on of the war by the Prussians with such indescribable exertions and suffering, generated it repeatedly anew, so that it continually became more general. But the course of the armies, and those countries which were long the seat of war, or of a blockade, suffered the most. From these reasons, in Berlin, Koningsberg, and Breslau, where the chief hospitals were established, and the greatest number of prisoners were collected, the mortality was excessive. From Prussia the disease spread with the progress of the war into Saxony, which, by the concentration of its evils, furnished a dreadfully fertile new field for its reproduction; and from Saxony it advanced westward. In October it first appeared at Hanau, and on the banks of the Rhine: in December in the south of Germany and Wirtemberg, first in the north and then in the south, furnishing a fresh proof of its communication by contagion.

Typhus fever accompanied the armies to Paris; and a better acquaintance with the nature of the disease induced Professor Pinel to change its place from among the adynamic fevers, to the *ataxique*, where it formed a new genus. *

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* La Médécine Clinique, Troisième Edition. 8vo. Paris, 1815.

It was on the 9th February 1814, that the first soldiers were sent into the hospital. They seemed in general overcome by fatigue, exhausted by forced marches, or long and painful carriage, bad regimen, privations of all kinds, moral affections, or the effects of severe cold. The disease so well known under the name of typhus, or jail fever, or hospital fever, did not begin to get frequent, or to make much progress, until the end of March, and in April, whether it appeared in a simple form or with different complications, with adynamic fever, phlegmasia of the chest, or a kind of colliquative diarrhœa. It spread more in the month of May, especially among the hospital attendants. It was among these particularly, that the disease could be carefully observed from the commencement, and during its various periods, and that they were enabled to follow its progress with the greatest exactness, especially, Pinel says, by the assistance of a new method of proceeding to the investigation of the symptoms. It is thus that he was able to determine its different degrees of intensity, and its different complications, as well as its degree of mortality, which was one in ten.

From reviewing the history of the fever of armies, Professor Hufeland draws the following conclusions.

In the treatment of fever, the antiphlogistic method was first employed; but it was soon found, that bleeding was not adapted for all fevers, and still less for all affections of the brain; and that it was sometimes not useful, but obviously hurtful.

There has always been a general or prevailing mode of practice which has altered from time to time, and has been sometimes antiphlogistic, sometimes tonic and stimulant, and sometimes depletory, and each carried to excess by the great body of practitioners; though those of sober judgment, who did not suffer themselves to be led away, preserved the true Hippocratic spirit, and assigned to each method its true place.

The fever which we now call typhus, synochus, or nervous fever, has always existed, but its idea has been improperly extended; the febris bellicosa, or militum, the war fever, has existed ever since there was large armies and war; and it has always been the same in its general character and phenomena, but with a greater or less tendency to inflammation or putrescency: and, in regard to bleeding in particular, it was very frequently employed in early times, but its use was restricted by its evident bad effects, and some of these epidemics altogether excluded its employment.

Finally, the last Prussian epidemic was an instance where the stimulating and heating method was generally hurtful, and where the cooling and antiphlogistic method, and even bleeding occasionally, was useful.

Are we then to conclude, he adds, that the healing art has hitherto been nothing but guess-work, a whim of fashion, and that we alone act from principle? that all our predecessors were wrong and ignorant, and that we alone are in the knowledge of the right principles? and that the disease has always been that, and that only, which has been last observed, viz. inflammatory, and that that method of treatment which has last been found useful, the antiphlogistic, is the only one which would have been useful in past times, and will always be useful in future?

These considerations should rather teach us to be diffident, and to compare the experience of the present with the past, and to derive from this comparison useful conclusions; first, with regard to the causes from which this difference of form and opinion has arisen; and then, with regard to what has been found beneficial in this disease, by the experience of the past and the present.

Thus, the last twenty years afford an instructive example to the attentive observer. After a series of years, in which, according to the German physicians, a more gastric character was predominant, along with the war of the last ten years of the preceding century there appeared a decidedly more nervous or asthenic constitution, which, instead of the evacuating remedies, so useful in the gastric constitution, required generally the use of tonics and stimulants. After this had reached its greatest height in 1806–7, it passed through the remarkable general intermittent epidemic of 1808–9 into a more inflammatory character; and the singular year 1811, with its comet, and unusual heat and drought, its solar and electrical nature, decided the change. The inflammatory diathesis now spread with remarkable force, and gave all diseases a more inflammatory character, and compelled physicians, who had entirely relinquished it, to have again recourse to venesection. Are we to wonder that the fever of armies should be influenced by the constitution of those whom it attacked, and that it should be at one time more asthenic, at another more inflammatory? Would it not rather be inexplicable if it should be otherwise? We see this in regard to other pathological states. Scarlatina, measles, the plague, and dysentery, are all influenced in their phenomena by the individual or constitution. Hence, we see them have totally different characters, not only in different individuals, but also epidemically. We see epidemics of scarlatina, measles and dysentery, of nervous, of putrid, and of inflammatory character.

But an epidemic constitution is not peculiar to the bodies of men. It affects also their minds; and there is a *character epidemicus* of physicians as well as of patients, and both must be taken into consideration to arrive at just conclusions.

Not only may diversity of observation and system, and, lastly, mechanical habit, determine the appearance and treatment of diseases; but we must not forget, that the treatment of the physician also affects the constitution of man, and must, itself, be considered as one of the most important powers, determining and altering the process of disease both in single cases, and also when the treatment is general, it may impress upon diseases, generally, a certain form and character. Thus we may impute to the sweating mode of treatment, the prevalence of the sweating and miliary diseases; to the gastric method, the gastric constitution; and to the stimulant, the increased frequency of nervous diseases.

Even observation is influenced by it; and we can seldom absolutely trust to observations made during the time of a prevailing system.

III.

Some Practical Observations in Surgery, illustrated by Cases. By A. Copland Hutschison, late principal Surgeon to the Royal Naval Hospital at Deal, &c. &c. 8vo. pp. 167. Callow, London, 1816.

The calm which has succeeded the bustle of war gives an opportunity to the surgeons, both of our army and navy, to lay before the public the result of that experience which the terrible bloodshed of the last twenty years has so liberally afforded them.

On looking into the records of surgery, it will be found, that many important contributions have been made by the surgeons of the navy, which they have been enabled to do, from the active services in which our ships have been constantly engaged; while it is only of late that our armies have been brought extensively into action, and opportunities given to the army surgeon of seeing the effects and treatment of wounds, with the disease of the soldier, brought on by the various vicissitudes of a campaign.

Some remarks on amputation, some on erysipelas, and the relation of six insulated cases, with the observations originating from each, compose this publication.

The preface, which is long, is a harangue 'on the progress of the science,—on the improvement of the junior members of the profession,'—and on 'alleviating some of the evils attendant on suffering humanity.'

The remarks on amputation seem to have been brought forward by the late work of an army surgeon, who advises early amputation in gun-shot wounds; but recommends deferring it until the patient recovers from the shock of the injury, which, in general, is two, four, or six hours, after the receipt of it. Our author satisfactorily points out the advantages of performing the operation as soon as possible; and concludes with the following hint to army surgeons.

'I cannot, however, quit this subject, without expressing my regret that Mr Guthrie had not made himself acquainted with the practice of *naval* surgeons, a class of *gentlemen* to whom the profession owe as many improvements in the science as to any other. Had he so *condescended*, previous to the publication of his work, he would have found, I imagine, that what Baron Larey and himself had but recently *discovered*, namely, the utility of *early* amputation in gun-shot wounds, has been the *settled* practice in the naval medical service for fully half a century.' p. 19.

In the use of the tourniquet, the pad of the common size is objected to, as keeping the strap at a considerable distance from the limb, thus leaving a triangular space on each side of the pad quite uncompressed. This 'discovery' was made in amputating a thigh, where considerable hæmorrhage took place from the profunda femoris (in this instance given off by the external iliac) which occupied the triangular space on the inner side of the pad. But here the common pad did all required of it, namely, compressed the main artery of the limb; for the flow of blood in the femoral artery was completely stopped. However, Mr Hutschison now uses a small pad, composed of a piece of wood, 'the size of a goose quill, with a turn or two of a roller round it.' He might as well reject pads altogether, and thus have complete security of no 'triangular spaces' being left uncompressed.

As to the scraping, or rounding the sharp edge of the sawn bone, which our author is 'in the habit of doing,' p. 24, we consider it quite unnecessary, for the very reasons he states in a subsequent part of his book, but which, in the heat of his engagement with the army surgeons, he seems to have forgotten. His words, at p. 42, are, 'that the wonderful powers of nature are able to remove, by absorption, all points and inequalities left by the saw in a short space of time. This fact has been frequently verified in dissecting stumps some months after amputation, in which the cut ends of the bone are found to be completely rounded.'

The remarks on erysipelas were formerly published in the Medico-Chirurgical Transactions, Vol. V. and are meant to recommend a new mode of treatment in erysipelas *phlegmonodes*. After mentioning the great frequency of the phlegmonous erysipelas among seamen, and that it is almost confined in its attacks to the extremities, chiefly the lower, he gives it as his opinion, that the condensed cellular substance forming the aponeurosis of the muscles, &c. is its chief seat, and thus proceeds:

'In the genuine erysipelas phlegmonodes, pus is seldom formed in the substance of the adipose part of the tela cellulosa, exterior to the aponeurotic expansion, that is, between this membrane and the skin; its common position is beneath these parts, and in immediate contact with the muscles.' p. 80.

The truth of this we have often witnessed, in examining the limbs of those who have sunk under an attack of the disease. In cases where the whole inferior extremity was affected, and no fluctuation could be perceived, the uniformly swollen limb having a peculiar *semi-elastic doughy feel*; yet, on cutting into the limb after death, the intermuscular cellular membrane, from the hip to the heel, but in particular that of the leg, was found loaded with pus, in which the muscles were literally soaking.

After mentioning the common practice in such cases, he proceeds—

'Convinced, then, of the *imbecility* of the above mode of treatment in all serious cases, I felt the necessity of adopting a more decisive plan of cure; and from that period have been in the habit of making several free incisions with a scalpel, on the inflamed surface, in a longitudinal direction, through the integuments, and down to the muscles, as early in the disease as opportunity admitted, and previous to any secretion having taken place.'

'These incisions may be about an inch and a half in length, two or three inches apart, and varied in number from six to eighteen, according the extent of surface the disease is found to occupy.' p. 87.

Fomentations generally followed the incisions; and the medical treatment consisted in attending to the bowels and skin. As to the success of the treatment, it seems to have been great.

'I can confidently say, that, in the majority of cases treated by incision, relief from all unfavourable symptoms has been effected in a very few hours. It is, as it were, to take the disease *by storm,* ' in place of a regular siege. And afterwards— ' In the last six years and a half in which the treatment by incision had been fully acted upon at the establishment at Deal, I have never lost a case, nor was the recovery of the patients to perfect health, and a free exercise of their limbs, protracted beyond the usual period. It may be worthy of remark, also, that the incisions healed kindly, and invariably without any disposition to slough. ' ' p. 100.

This is certainly more than other practitioners can boast of; and perhaps the brilliant success of the *storming* operation may reconcile us to the violence and cruelty with which it is attended. Our author does not give a detailed account of the cases which came under his management. Apparently he caught them all at the commencement of the disease; or his treatment must be powerful indeed, if it could recover a limb in the state of suppuration we have above mentioned.

In the case of popliteal aneurism, the experiment was made, of leaving the ligatures on the artery only for six hours. On removing them at the end of this time, the circulation in the vessel returned.

The remaining cases possess no great interest, though several of them give occasion to all the forms of a distinct essay. Thus we have a chapter entitled, ' on Necrosis, ' one ' on Lumbar Abscess, ' and another ' on Ununited Fractures, ' the base of each being a single case of each disease.

IV.

JOANN. CHRIST. ALBERSII, Medicinæ et Chirurgiæ Doctoris, *Commentarius de Diagnosi asthmatis Millari strictius definienda.* Gottingæ, 1817. pp. 104.

In the sketch of the Recent Progress of Medicine, which we translated from the German, there is a very full account of the numerous publications, in regard to Croup, to which the prize-question of Napoleon gave rise. The present little dissertation owes it origin to the suggestion of Dr John Abraham Albers of Bremen, who divided the prize with Dr Jurine of Geneva, and is written by his nephew. Its object is to controvert the diagnosis attempted to be established between croup and the acute asthma of Dr Millar, by the celebrated Dr Wichmann of Hanover, and to show that they are in fact one and the same disease. In his object he has fully succeeded; and we do not remember ever to have read a piece of medical controversy, in which the argument was so satisfactory and conclusive. The fact is, that in this country, in the very district where Millar practised, the acute asthma of children is totally unknown; but children have the croup. There is not then a doubt that the disease is the same, and that Millar merely gave it a name in conformity with the opinion he had formed of its nature, which has given rise to the whole confusion. Nay, it is perfectly evident, that Dr Millar had no idea of describing a disease different from croup, but, on the contrary, quotes Dr Home, as having written of his asthma, and intended only to give what he thought a truer description of it; but, as difference of opinion has a very great influence on our mode of viewing and stating the same fact, the description of croup by Dr Home, who considered it as being a purely inflammatory affection, and by Dr Millar, who considered it as being purely spasmodic, differed so much, that Dr Michaelis first, and then Dr Wichmann, giving too much credit to the painters for the fidelity of their likenesses, supposed that they had drawn from different individuals.

Dr Albers junior satisfactorily analyzes Dr Millar's work, and shows that he is decribing croup. He then quotes the opinions of the best writers upon the subject, and, lastly, refutes Dr Wichmann's diagnostic characters.

In Germany, it appears that Dr Wichmann found many disciples, but they cannot resist the evidence here brought before them, and we will venture to say, that Dr Albers senior will not be disappointed in his expectation of its effect.

"An ullo et quali modo haec commentatio sit profutura? experimento docebimur. Certe, quae me, ut ipsius scribendae suasor auctori exstiterim, permovit ratio, bona fuit atque sincera, cum, in hunc usque diem haud paucos infantes miseras fuisse victimas opinionum vel de peculiari Asthmatis Millariani morbo vel de ipsius cum tracheïtide complicatione, pro certo exploratoque habeam."

V.

An Experimental Inquiry into the Effects of Tonics and other Medicinal Substances, on the Cohesion of the Animal Fibre. By the late ADAIR CRAWFORD, M. D. F. R. S.; edited by ALEXANDRR CRAWFORD, M. D. 8vo. London, 1817.

THERE have been few individuals in this country, who have acquired a greater share of popularity, in proportion to the magnitude of his publications, than the author of this posthumous treatise. His experiments were marked by so much ingenious contrivance, and the deductions that were drawn from them seemed so justly to flow from the premises, while his manner of reasoning indicated so much candour and liberality, that although the greatest part of his conclusions have been since controverted, and even his fundamental doctrines impugned, yet his reputation still remains undiminished. It is, therefore, with no small degree of interest that we receive a new work from the same hand, especially as it comes out in such a form, as not to permit us to entertain any doubt of its authenticity. It is edited by Dr Alexander Crawford, the brother of the deceased, who informs us, that the essay was completed exactly in the form under which it now appears, and was intended by the author for publication, when his sudden and premature death took place, and prevented the execution of the design.

The general object of the work is sufficiently expressed in the title. We are informed by the author, that he was led to the train of inquiry which terminated in these experiments, from observing the effect of the gaseous matter which is evolved from the cancerous ulcer, in softening the animal fibre, and eventually bringing it into a state of dissolution. As this particular agent thus appeared to have the power of acting chemically upon the fibre, and increasing its tendency to putrefaction, so it was supposed that other substances might produce their specific effects on the same body, and that in this way some light might be thrown upon the operation of various matters, both noxious and medicinal, in increasing or diminishing its cohesion.

Dr Crawford begins by explaining the exact meaning which he affixes to the term cohesion, by which he proposes to express, not only what is more strictly entitled to this appellation, but likewise the qualities which are usually denominated firmness, elasticity, and strength. These qualities are thus described—' By the firmness of the fibre, I mean to express the force with which it resists impression; by the elasticity, its power of resisting extension, and of restoring itself when the extending cause is removed; by its strength, the force which it is capable of exerting in opposition to such causes as tend to destroy the continuity of its parts.' Besides these properties, which belong to dead matter, we have others which are exclusively inherent in the living fibre, of which the most important is contractility, or the power which the particles possess of approximating themselves. Upon the union of this quality with that of elasticity, it is conceived, that what is styled the tone of the fibre depends. We have a description of a peculiar apparatus, which was invented by Dr Crawford, for the purpose of submitting to an exact measurement the results of his experiments, which seems to possess every requisite for correctly answering the object in question.

The expriments are arranged in six chapters, according to the nature of the substances, to the action of which the fibre was submitted. The substanses are as follows. *1st*, Vinous and spirituous liquors; *2d*, narcotics; *3d*, vegetable bitters; *4th*, acids and alkalies; *5th*, neutral and earthy salts; and lastly, metallic preparations. In order to make the reader acquainted with the manner in which Dr Crawford prosecuted his experiments, we shall quote the first of them at full length, in which he illustrates the effect of port wine upon the animal fibre.

'With a view to determine the changes which the fibre might undergo, by exposing it to the action of port wine, six portions of the small intestine of a kitten were taken, each of which was 2½ inches in length. Three of these were introduced into a phial, which was nearly filled with port wine, and closed with a cork; and the remaining three were immersed in water, as a standard. Being placed in a cool situation during three days, the portions in contact with the wine, were found to have greater firmness than those that were immersed in the water. The sum of the weights required to break the former, was 9 lb. The sum of those required to break the latter 7 lb. 4 oz. Each of the portions immersed in the wine being stretched, by a weight of 6 ounces, the sum of the extensions was 6 degrees nearly. That of the standard, in similar cirumstances, was 12 degrees.'

In order to ascertain how far a similar effect is produced by vinous fluids upon the living body, two kittens were taken of the same age and size, to one of which was given wine, to the other milk. In an hour's time they were killed, and equal portions of the stomachs of each were submitted to the same kind of experiment as in the former example, when it was found, that the stomach which had taken the wine, required a greater weight to break it, was less extensible, and firmer to the touch. It was afterwards found, that if alcohol was applied, for a considerable length of time, to the animal fibre, it had the contrary effect, of diminishing its strength and firmness.

The author then attempts to apply the results of these experiments to the effects of wine or spirits upon the living body, when taken as articles of diet or medicine; and he concludes the first chapter with the following observations.

'Vinous and spirituous liquors, introduced into the stomach of a living animal, have a direct tendency to stimulate the fibre and increase its cohesion. When these liquors are diluted to a certain degree, the increase of activity and of tone which they impart, are such as can be sustained without injury. But when ardent spirit is given in considerable quantity to a young animal, it violently inflames the fibres of the stomach; and it would appear, that the spirit does not possess the power of communicating an increase of cohesion to a part which is highly inflamed. '

The experiments on narcotics, of which opium is the one that was principally attended to, which form the subject of the second chapter, were not attended with such decisive results, nor is the analogy so clear from them to the effects of narcotics on the living fibre. It appeared, that opium increases the cohesion of the intestines, but that it diminishes the strength of the skin and nerves. Dr Crawford attempts to show in what manner these properties may be applied to explain the medicinal effects of opium; how far the vitality of the part will interfere with, or promote its chemical powers; and how far its operation on the different parts or organs may produce that varied action which seem to follow from its employment. It would extend our remarks too far to follow him through the whole train of his reasoning. To the whole of it we may, however, give the merit of ingenuity; and many facts appear to us entitled to the superior merit of correctness. The inferences that we are enabled to draw from these experiments are, however, much more equivocal than from the former class, in consequence of the greater influence which narcotics exert on what has been called the vital principle; and which, according to circumstances, may either promote or counteract the chemical effect of these substances.

The third chapter contains the effects produced by vegetable bitters upon the cohesion of the fibre. Under the denomination of bitters, it appears, that the author includes some bodies, which probably owe their most active qualities to some other principle. The first, for example, which he employed, galls, acts, as we may presume, more from their astringency than their bitterness; and it is known with certainty, that galls contain two distinct constituents, gallic acid, and tan, which have different properties, and to either of which there is some doubt if the term bitter can be applied. But waving this objection, we proceed to the examination of the experiments. Portions of the intestines and skin of kittens were submitted, as usual, to the action of the galls, and compared with other similar portions, when it was found, that 'galls increase the strength and elasticity of the skin, as well as those of the intestines.' It appeared, however, that 'the portions of the intestines and of the skin, which were exposed to the action of the galls, broke more unequally than the standard.' The next substance that was tried was Peruvian bark, and afterwards chamomile and gentian, which more strictly come under the denomination of bitters. We learn, in general, that the cohesion of the intestines was increased, and that of the skin diminished, by their application. We are afterwards informed that colombo, cascarilla, myrrh and serpentaria, occasioned a small increase in the cohesion of the intestine, but it is so inconsiderable, that it could not be determined with precision. On the skin they had a contrary effect, but this was also inconsiderable in degree.

Acids and alkalies, as is well known, by their power in dissolving animal substances, diminish the cohesion of the fibre; but Dr Crawford found that the carbonated vegetable alkali rather tended to increase the firmness of the animal matter. A variety of neutral salts were then made the subject of experiment. The effects were various; but the general conclusion is, that most of them tend ' to increase the cohesion of all the soft parts of the animal body.' The following fact may deserve to be particularized, although it may not be applicable to any direct practical purpose. Dr Crawford observes,

> ' That the property of strengthening the intestines, and of weakening the skin, is common to all the substances which have justly acquired reputation in the cure of intermittents. This property belongs to ipecacuanha, to emetic tartar, to sal ammoniac, to gentian root, to chamomile flowers, and to the Peruvian bark. And it is remarkable, that the latter substance, which is the most efficacious remedy hitherto discovered for intermittent fevers, possesses the abovementioned property in the highest degree.'

The results of the experiments in the last Chapter, giving an account of the effects of metallic preparations on the animal fibre, are considerably varied, as might be expected from the varied nature of the substances employed. Among others which were tried, were corrosive sublimate, nitrate of silver, and green vitriol, all of which may be well imagined to act upon different principles, and to produce different effects, which may rather be attributed to a direct chemical action, than to any thing of a specific nature belonging to the animal fibre.

We have thus given a pretty full account of the nature of the experiments that are related in this work, and of some of the most important results. We have no doubt of the author's accuracy; and we think that he has brought forward an interesting body of facts, well deserving of our attention. As to his physiological and pathological deductions from them, they certainly rest upon a less firm foundation. They must be received with that caution, which it is always necessary to exercise, in the application of physical experiments to the operations of the animal economy; and we must further remark, that, had the author been now alive, the improved state of science, since he wrote his treatise, would necessarily have suggested to him many alterations.

PART III.

MEDICAL INTELLIGENCE.

REPORT of DISEASES treated at the EDINBURGH NEW TOWN DISPENSARY, *from March 1st to June 1st* 1817.

	No. of Cases.		No. of Cases.
Febris continua	74	Pleurodyne	21
——— intermittens	1	Hæmoptysis et Phthisis	32
——— ephemera	12	Asthma	6
——— dentitionis	25	Hydrothorax	6
——— infantum remittens	49	Pertussis	7
Hydrocephalus	3	Palpitatio	13
Cephalæa	39	Angina pectoris	1
Paralysis	6	Hepatitis acuta	1
Mania	2	——— chronica	3
Epilepsia	4	Icterus	4
Convulsio	6	Gastritis	2
Chorea	1	Dyspepsia	86
Ophthalmia	50	Hematemesis	3
Hordeolum	1	Hysteria	3
Cataracta	4	Enteritis	8
Amaurosis	3	Colica et obstipatio	35
Staphyloma	2	Vermes	37
Fistula lacrymalis	1	Diarrhœa	42
Polypus narium	1	Dysenteria	4
Otalgia	2	Tabes mesenterica	6
Surditas	5	Hæmorrhois	8
Odontalgia	15	Prolapsus ani	2
Aphthæ et ulcera faucium	10	Hernia	4
Ranula	1	Dysuria	5
Cynanche tonsillaris	26	——— urethralis	2
——— trachealis	2	Hæmaturia	1
——— laryngea	2	Gonorrhœa	2
Catarrhus	98	Paraphymosis	1
Pneumonia	17	Inflammatio testis	6

	No. of Cases.
Hydrocele	1
Hæmorrhagia uteri	5
Leucorrhœa	8
Prolapsus uteri	1
Amenorrhœa	10
Dysmenorrhœa	2
Hydrops	14
Rheumatismus	66
Podagra	1
Asthenia	3
Rachitis	6
Scrofula ossium et articulorum	7
——— glandularum	10
——— cutanea	2
Morbus spinalis	3
Hydrops articuli	1
Syphilis	1
Pseudo-syphilis	7
Phlegmon	27
Mastodynia	8
Paronychia	7
Anthrax	1
Erysipelas	2
Erythema	10
——— papulatum	1
Pernio	3
Variola	1
Varicella	11
Rubeola	23
Scarlatina	9
Urticaria	8
Strophulus	3
Lichen	8
Lepra	5
Psoriasis	13
Ichthyosis	1
Elephantiasis	1
Purpura	3
Ecthyma	2
Impetigo	20
Porrigo	28
Psora	58
Herpes	10
Aneurisma	1
Tumor	12
Ulcus	30
Carcinoma	4
Ustio	8
Vulnus	11
Fractura	4
Contusio et subluxatio	52

A very mild winter was succeeded by a very dry spring, unusually propitious to the operation of sowing; but although there has been much bright sunny weather, the wind has generally been sharp, and the nights cold and frosty; and vegetation is hardly further advanced than usual. Since the middle of May there have been heavy rains, with very variable winds, which have renewed, to a certain extent, the diseases of winter. On the whole, however, the number of inflammatory affections, particularly of the chest, has been much less than last year. The number of catarrhs in the Report at this time last year, was 1 in 10 of the whole;—in the present Report it is 1 in 15. The number of cases of pneumonia was 1 in 38 of the whole,—and is now only 1 in 84.

On comparing the Reports of the present and preceding quarter, with the corresponding Reports of last year, a considerable increase will be observed under the head of fever. The number of patients who had applied with fever, during the first five months of 1816, was 47, or nearly 1 in 32 of the whole applications. In the first five months of 1817, the number was 99, or more than 1 in 26 of the whole. It must be observed also, that the fevers which we saw last year were in a great measure confined to certain small districts of the town, whereas this year, they have been pretty generally diffused over the town,—that the number of fever-patients admitted into the Royal Infirmary this year has been much greater than usual,—and that there have been more cases of fever among the higher ranks.

Although, therefore, many of the reports which have been circulated in regard to the fever in this city, have been greatly exaggerated, yet there is sufficient evidence of its having prevailed to an extent considerably greater than usual for some months past. Within the last two or three weeks it has considerably diminished; and, agreeably to the observations we made ourselves at this time last year, and to those which have been often recorded by others, in regard to the effect of summer weather on the contagion of typhus, a further and speedy diminution may be confidently expected.

With respect to the causes of the disease, we apprehend that there can be no difficulty, when it is considered, that continued fever has never been absent from Edinburgh for many years, —that the habits of the lower orders are in general very uncleanly,—that many parts of the town, inhabited by them, are very close and dirty,—that whole families, or even more families than one (particularly in hard times) are often crowded into single rooms,—and that a great number of the inhabitants of such places, notwithstanding the exertions so liberally made for their relief, have suffered severely during the winter, both from want of the necessaries of life, and likewise from the depression of spirits that attends the want of employment. Whether these last circumstances of predisposition can in any case amount to a cause of contagious fever, without the application of the specific contagion, is a question, we apprehend, which it is impossible to decide by observations made in a large town, in which fevers are continually occurring, and to which strangers are continually resorting.

With regard to the influence of the effluvia from the dunghills, which have been so improperly accumulated round the town, and of which much has been lately said, there can be no doubt of their contributing to vitiate the air in their neighbourhood; and, in this way, they may perhaps aggravate the symptoms and favour the propagation of the disease within a certain district; but when it is considered, that *continued* fever has never been ascertained to proceed from the effluvia arising from *dead* animal or vegetable matters;—that such matters are to be found in so great abundance, in this and other towns, that, if they really had caused the disease, it is hardly possible to conceive, why decisive proof of the fact should not have been long ago afforded;—that the disease cannot be produced even by the effluvia arising from a number of patients affected with it, unquestionably its most powerful exciting cause, at the distance of a few yards in the open air, or in well-aired rooms;—that these dunghills are in tolerably open situations;—and that we have not found the disease nearly so prevalent in their neighbourhood as in distant parts of the town;—it seems to us impossible to admit them as part of the cause.

Although we have seen abundant evidence of the contagious nature of the disease, yet the contagion has not appeared to be very active. In various instances, in which tolerable attention has been paid to ventilation and cleanliness, single individuals of families have gone through the disease without communicating it. The progress of the contagion has likewise been in general slow; the virus appearing to lie latent for a considerable length of time in many of the patients. In two or three cases, nearly three months elapsed after the seizure of the first individual of a family, before a second has been taken ill. According to Dr Haygarth's mode of reasoning, the poison would be supposed, in these cases, to have lain latent for about eighty days. But it seems fully as reasonable to suppose, that the disease would not have been produced, in these cases, without a long continued exposure to the contagion; and, therefore, that instead of reckoning, as he does, the period during which the contagion lay dormant in the second patient, from the fifth day of the disease of the first, we should reckon it from a much later period of his disease. It appears favourable to this idea, that the contagion spreads, as far as our observation goes, not only more extensively, but likewise much more rapidly, in close and dirty, than in clean and airy situations; indicating, we should conceive, that a short exposure to the contagious effluvia, in a concentrated state, produces the same effect on the constitution, as a much longer exposure to them in a state of dilatation.

A great number of the patients in fever, visited from the Dispensary, were sent to the Infirmary without loss of time. In the remainder, the disease has been very generally mild, seldom exhibiting any of the symptoms described under the name of Typhus Gravior. In a few cases, an eruption appeared about the fourth or fifth day, extensively diffused over the body, somewhat elevated above the skin, and bearing a very near resemblance in colour and figure to the advanced stage of the measles. This eruption seemed to be much favoured by warmth, and was seen, in more than one instance, to fade and disappear under the cool regimen and the use of laxatives, where no wine or other cordials were employed.

The old practice of bleeding in continued fever, which has again become fashionable within these few years, has been repeatedly employed in cases that seemed favourable to it, by ourselves and by other practitioners in Edinburgh. Like most of the other remedies highly recommended in this disease, it has appeared to us to have a very considerable effect in relieving particular symptoms, especially those indicating determination to the head or to the chest; but on a fair comparison of the cases in which, on account of the presence of such symptoms, it was employed, with those in which, on account of their absence, it was omitted, we cannot say that it seemed to shorten the disease. And although it has not appeared to us, in the cases we have seen, to induce any of the symptoms indicating extreme debility, which so often occur in the latter stages of fever; yet, as those who were treated merely by the cool regimen, sponging the skin, clearing the primæ viæ, upwards and downwards, in the commencement, and keeping the bowels open during the course of the disease, remained equally free from these symptoms, in at least as many cases, we cannot bear testimony to its supposed efficacy in preventing their occurrence.

One of the cases of purpura terminated fatally. It occurred in a married woman, upwards of 50, who lived in an ill ventilated, cold, and damp ground floor; and who, from the concurring testimony of her neighbours, had for some time been in a state of great poverty and privation. She stated, that, about four months previous to her application at the Dispensary, she had been subject to great languor, sudden and severe attacks of heat and flushing, and great debility. These symptoms were quickly followed by an eruption of livid patches and purple spots on her body, which had since continued, and, a few days before her application, she had been alarmed by a considerable discharge of blood, both by stool and from the mouth.

On examination, petechiæ and livid patches were found on nearly the whole body, but particularly on the legs and arms. The petechiæ were numerous also on the tongue, gums, and tonsils, which were spongy, and appeared as if distended with bruised blood. Her features were shrunk and pale, and her body much emaciated; pulse 120, and weak. Bowels rather costive. Her menstruation had been irregular for several years, but had not yet ceased altogether. She never had any children.

From her being in a state of great debility, bleeding seemed improper; but she took purgative medicines, sulphuric acid, bark, and wine, with apparent advantage, and with the effect of suppressing the hæmorrhage for a short time. These symptoms soon recurred in an increased degree,—she became rapidly weaker,—and she died in a state of exhaustion, resembling the last stage of typhus gravior, three weeks from the date of her becoming a patient of the Dispensary.

On dissection, about three ounces of bloody serum was found in the left cavity of the chest, and about two ounces in that of the right. The surface of the lungs was sound, but they did not collapse as much as usual; and, on cutting into them, we observed a considerable effusion of dark red fluid into their substance. There was no disease of the inner membrane of the trachea, or of the first branches of the bronchi.

On the external surface of the left ventricle of the heart, there were numerous petechiæ, exactly similar to those on the surface of the body. The heart contained very little blood, and in its right auricle, there was a large gelatinous coagulum, of a very light pink colour. The valves between the left auricle and ventricle, as well as those at the commencement of the aorta, had in several places diffused spots of a deep purple colour. The abdominal viscera had externally a sound appearance, except that about a dozen vivid spots of purpura were seen on the edge of the omentum. The stomach contained a dark-coloured fluid, and its internal surface was copiously studded with small petechiæ. The inner surface of the œsophagus, and of the small intestines, was natural; but the colon, like the stomach, had a copious eruption of purpura on its inner coat. The gall-bladder was very full of bile, and the intestines contained a large quantity of dark reddish-brown coloured feces. We observed an enlargement and darkened colour of some lymphatic glands, situated on the upper and inner surface of the sternum, and also at the root of the neck, and near the lumbar vertebræ. The surface of the left kidney, towards its inferior surface, was also of a deeper colour than usual, but its internal texture was sound. The right kidney, liver, spleen, and pancreas, were in a natural state. There was found on the right side of the abdomen, lying on the ovary, about two teaspoonfuls of a semitransparent light yellow-coloured gelatinous matter. It was quite readily detached, felt oleaginous, and was easily broken down. Nothing particular could be observed on the peritoneum, from whence it was removed; but the right ovary was enlarged to the size of a man's closed fist, was irregularly rounded, and soft, and somewhat elastic to the feel. On opening it, the cavity was found to be filled with light-coloured hair, matted together by means of a matter, partly fluid like pus, but chiefly of the consistence and colour of white paint, and near the external surface, surrounded by a layer of oleaginous yellow-coloured substance, similar to that found on the outside of the ovary, which melted and burned like common oil. The white matter connecting the hair was also, though less completely, of a fatty nature. In the centre of the mass attached to the sac, there was found a small irregular bony substance, covered with flesh, and having long hair growing from it. The rest of the hair contained in the ovary, some of which was several inches in length, in some places adhered on the inside of the sac, but in general was loose, and coiled up in the fatty substance. The left ovary had a small hydatid, of the size of a bean, attached to it, but appeared of the usual size; on cutting into it, however, we found a cyst containing the oleaginous yellow-coloured substance, mixed with some hair. The uterus appeared to be natural; but, on opening it, we found a coagulum of blood filling up its cavity, and some small hydatids near its neck.

In the midwifery department, seventy-eight women have been delivered between the 1st March and 31st May. Of these, there were—Natural labours, 67; Preternatural, 3; Complex, 4; Premature, 3; Instrumental, 1. Total, 78.

Of the preternatural cases, there were two presentations of the breech; and one in which the feet and funis umbilicalis presented.

The complex cases were two, accompanied with hæmorrhage, from atony of the uterus after delivery; and two of twins.

The only case requiring the use of instruments, was one in which the head of the child was very much enlarged from hydrocephalus, measuring in circumference 21½ inches, and containing 72 ounces of fluid. The midwife in attendance sent for assistance about the end of the fourth day of labour, when the head was opened, and the child extracted; but the patient was so much exhausted, that, although there was no great loss of blood from the uterus after delivery, she sunk in less than an hour.

Of the eighty children produced, there were 43 males and 37 females.

Extract of a Letter from Professor SCARPA *of Pavia to* J. H. WISHART, *Edinburgh.*

I HAVE the pleasure of communicating to you a new fact in the practice of surgery, which promises to render perfect the Hunterian operation. During last year, I made many experiments on animals, after the manner of Dr Jones, in order to determine the most useful mode of tying the large arteries of the extremities. From these experiments I have obtained many useful results, which I shall shortly publish; one has very particularly attracted my attention, viz. that, on the fourth day after the operation, the ligature may be removed from the artery without danger, as the union and closure of the artery are then sufficiently complete and firm to resist the impetus of the blood: Therefore, that it is not necessary to wait till the ligature is separated by the *ulcerative* process of the artery, thus losing precious time, from sixteen to twenty days, which are required for the separation of the ligature, which time might be employed much more usefully in healing the wound, free from every extraneous body, and disposed to adhere by the *first intention.* The first experiment, which was made on a man on account of a popliteal aneurism, was performed three months ago. The ligature was removed from the femoral artery, the fourth day after the operation; and the event fully answered my expectations, as the pulsation in the aneurism did not return, and the wound was cured by the first intention. In operating in this manner, the interposition of the small cylinder of linen spread with ointment between the artery and the knot, which I employ, is of great use, and indispensable; as thus, the ligature is easily removed from the artery, while the simple *circular* ligature, being depressed between the ruptured *internal* and middle coats of the artery, renders its division and removal extremely difficult and dangerous. On the contrary, an incision may be made with decision and safety on the ligature with the interposed cylinder, which protects the artery from being wounded. As soon as I have collected a sufficient number of facts in the human subject, I shall lay a minute detail before the public. I am acquainted with what has been done by Lawrence.

Extract from Letters to Dr Duncan senior, from Mr Grace, Surgeon, Cupar-Fife, on the occurrence of Variola after Vaccination.

DEAR SIR,—Having this day seen a girl with small-pox, who was vaccinated at the Public Dispensary in Edinburgh, and her case being the most severe that I have seen subsequent to vaccination, I give you the earliest intimation of it, thinking it possible, that some one of the gentlemen connected with the Institution may wish to see it.

Her name is Violet Brown, aged 13 years; was vaccinated in May or June 1804, when four months old. This is the sixteenth day of the fever, and thirteenth of the eruption, which has been on the decline for the last two days, but the fever has not abated. Her brother, who was vaccinated with her, in Edinburgh, has also, I understand, had small-pox, but in a very mild form.

Cupar, 9th June 1817.

DEAR SIR,—I wrote to you in haste several days ago, not having time then to answer you fully on the subject of your inquiry; and, in the first place, it may not be uninteresting to you to be made acquainted with the origin of the variolous infection now prevalent in Cupar.

About the end of January last, I was requested by the Magistrates to examine the child of a vagrant, reported to them as having the small-pox. I found it in the last stage of that disease, the eruption being on the decline for several days. The mother informed me she had come from Stirling, where her child caught the disease, and that it never had been vaccinated.

To prevent the propagation of the infection, I suggested the propriety of burning the child's clothes, and also the bed-clothes, the Magistrates having previously ordered the woman to leave the town.

The keeper of the prison was appointed to destroy the clothes, and soon after *his servant* was seized with small-pox, which proved fatal to her on the 10th of February. The mother of this young woman came from the country to attend on her, and on her return home she communicated the infection to three more of her children, all of whom fell victims to it. Owing to the prejudice of the father of this family against vaccination, none of them had been vaccinated. Soon after this period, cases of small-pox after vaccination became frequent, the greater number of which were extremely mild, and seemed, by the previous vaccination, to have lost the distinctive marks of genuine variola. In three cases the symptoms were somewhat violent; and a boy, attended by Mr Wiseman, died on the fifth or sixth day.

The first case of small-pox, subsequent to vaccination, which came under my own treatment, occurred on the 14th of February (in a family which had frequent intercourse with the people in the jail) and has been followed by eight others. In all of them the disease came on with sharp fever and sore throat, frequently accompanied with delirium; in the worst cases, great depression, inclination to faint, and coma, with a very feeble pulse. In the mild form of the disease, the fever abated on the appearance of the eruption, and ceased entirely on the fifth day. The pustules began to dry as early as the fifth day in some, and in others on the seventh or eighth day. In the worst cases, the fever continued as late as the tenth or eleventh day, when it disappeared, and never returned. About this time the pustules began to turn, and in two or three days more the patients were quite well.

I shall proceed to describe the symptoms of each case, all of which were inoculated by my father.

No. 1. Ann Bell, age 14 years, vaccinated when four months old; pustules numerous, but distinct, small, and conical; contents crystalline; dried on the eighth day; fever abated on the sixth day. Had varicella five years ago.

No. 2. Elizabeth Welch, age 17, vaccinated when ten months *old;* two or three dozen of pustules, small, and conical; contents crystalline; dried on the seventh day; fever ceased on the fifth day. Has had varicella.

No. 3. Charles Welch, age 15, vaccinated when four months old; pustules large and flat; contents purulent; dried on the ninth day; fever ceased on the seventh day.

No. 4. Margaret Welch, age 13, vaccinated when three months old; first stage, great depression, with an inclination to faint; pustules large and flat, confluent; fever continued to the tenth day; eruption began to turn on the same day. Has had varicella.

No. 5. Agnes Philp, age 15, vaccinated when four months old; pustules small and conical; crystalline; dried on the ninth day; fever ceased on the fifth day.

No. 6. William Philp, age 6 years, vaccinated when four months old; had six pustules, which dried on the fifth day; fever ceased on the fifth day.

No. 7. David Philp, age 11 years, vaccinated when four months old; had about a dozen of pustules, small and conical; crystalline; dried on the fifth day.

No. 8. Robert Wilson, age 14, vaccinated when three months old; pustules confluent, large and flat, purulent; dried on the tenth day; fever ceased on the same day.

No. 9. Mary Nicholson, age 14, vaccinated when four months old; pustules small and conical; contents crystalline; dried on the ninth day.

The disease still continues to spread, but gives little alarm, its nature being so mild, that most of the children are running about in their usual way, as soon as the eruption appears. I understand varicella was in the town lately, but I have seen no cases of it myself.

The girl whose case I wrote to you about, has quite recovered; the pustules having dried very rapidly.

Any further communication on this subject that you may wish, I shall be happy to give you.

Cupar, 13*th June* 1817.

Report of the State of the Fund of the Society for the Benefit of Widows of Officers of the Medical Department of the Army, laid before the Second Anniversary Meeting, held at the Thatched House Tavern, on the 9th May 1817.

Dr William Somerville in the Chair.

It was stated in the report of last year, that the money then accumulated, had enabled the trustees to purchase to the amount of 1671*l.* 10s. 9d. in the three per cent stock. In addition to this sum, there was as much due as would purchase 800*l.* in the same fund, at the value it bore at that period, making a capital of 2471*l.* 10s. 9d. in the three per cents.

This capital was rendered much more productive, by the salutary measure adopted of exonerating the fund of the Society from all expenses of administration, by the voluntary subscription of five shillings annually for that purpose.

A comparative view of the following statement of the affairs of the Society, at this period, will show that the establishment has risen to its present state of maturity, in a shorter time than its most sanguine supporters ventured to predict.

There are 74 Married members of the *First Class.*
40 Married members of the *Second Class.*
220 Unmarried members of the *First Class.*
110 Unmarried members of the *Second Class.*

Total 444 Members, whose subscriptions amount to 1071*l.* per annum: this sum, added to the interest on 5638*l.* 4s. 3d. three per cents. makes the income of the Society upwards of 1200*l.* a year.

Mr J. H. Wishart of Edinburgh is preparing for publication a Translation of Professor Scarpa's Essay on the Congenital Club-foot of Children. This work will be illustrated with five original Engravings by Anderloni.

In the press, and will be published in a few days, an Experimental Inquiry into the Laws of the Vital Functions, with Observations on the Nature and Treatment of Internal Diseases, by Dr W. Philip, in part republished, by permission of the President of the Royal Society, from the Philosophical Transactions of London, with the report of the National Institute of France on the Experiments of M. Le Gallois, and observations on that Report.

In the Press, the Principles of Diagnosis, by Marshall Hall, M.D. &c. This work is founded entirely on the External Appearances of Morbid Affections. It embraces, 1. A view of the countenance and attitude of patients, inasmuch as they are plainly characteristic of diseases. 2. The symptoms of diseases considered in their modification, and in their relation to particular affections. 3. A diagnostic arrangement, and lastly, the diagnosis of diseases.

A part of this work will be published in July.

⁂ Communications have been received from Drs Dickson, Spens, Lazzaretto, Prichard, Howison, Morrison, and Walker, and Messrs Wishart, Hay, and O'Neil.

For review, we have received Salt on Morbid Poisons, and Ewing on the Circulation of the Blood.

Communications may be addressed to the Editors, to the care of Messrs Constable & Co. Edinburgh; Messrs Longman, Hurst, Rees, Orme, & Brown, London; and John Cumming, Dublin.

No. LII. will be Published on the 1*st of October* 1817.

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PART I.

ORIGINAL COMMUNICATIONS.

I.

Case of Injury of the Spinal Cord. By JOHN GORDON, M. D. Fellow of the Royal College of Surgeons, Edinburgh.

DEAR SIR,—The following is a case of injury of the Spinal Cord, which occurred to my friend Mr Law, in the Royal Infirmary; and which he has kindly permitted me, with the consent of the managers, to communicate to you. The case is interesting in a physiological point of view. The dissection was performed by myself, with the assistance of Mr Glover, house-surgeon. I am, Dear Sir, your's sincerely,

Edinburgh, 1*st August* 1817. JOHN GORDON.

To Dr Duncan, Jun.

H. M. aged 40, a chimney-sweep, was brought into the Infirmary on the 11th July, about six in the morning; having just fallen from a chimney-top three stories high. The accident had immediately deprived him of sensibility, and of voluntary power, in all parts of the body, below the level of the second or third ribs; and he had also suffered slight loss of power in the upper extremities. He complained of nothing, however, but pain in the lower and back part of the neck. The ridge of the spine, opposite the upper dorsal vertebræ, seemed more prominent than natural; and from this point upwards, there was an unusual inclination of the neck forwards. By gentle extension, made by laying hold of the occiput and chin, the parts could be brought with ease into their natural position, which seemed to afford the patient a slight relief from pain; but they immediately returned to their former place again. His pulse was 50, and distinct, but small; his breathing a little hurried, and his extremities cold.

He was laid in an easy position, on his side, in bed; a few ounces of wine were given him, and warmth applied to his feet. In a few hours, the whole body acquired its natural heat. During the night he slept a little.

Next day his pulse was 80, rather small and unequal, and his breathing a little quicker and shorter than natural. Eight leeches were applied to the fore part of his neck. The day after, he complained of soreness in his throat, and ten more leeches were applied to the right side of the neck. His urine was drawn off by a catheter, and a purgative administered.

On the 14th a purgative enema was given, which produced evacuation; but not until aided by senna, Epsom salts, and colocynth. On the 15th, he remained much in the same state; but on the evening of the 16th, his pulse being 68, and strong, six ounces of blood were drawn from the arm, and the blood exhibited the buffy coat. In consequence of this evacuation, the pulse became weaker.

On the 17th, his breathing was rather more oppressed. He complained of a prickling sensation about the knees, and an uneasy feeling of numbness in his upper extremities. About midnight he suddenly requested that his shoes might be given him, that he might go home; after which his breathing became gradually more laborious, and he died in the course of three hours.

The body was inspected thirty-six hours after death.

On examination of the vertebral column, a fracture was discovered, beginning on the posterior surface of the body of the seventh cervical vertebra, and extending downwards and forwards through it, and through the intervertebral substance between it and the first dorsal vertebra, from the anterior surface of which also it broke off a thin splinter. The anterior common ligament of the spine, opposite to this fracture, was completely torn across, together with the longus colli muscle of the left side; but this muscle on the right side, and the posterior common ligament of the spine, remained entire. The handle of a scalpel could be passed with ease through the fracture, into the vertebral canal. The last cervical vertebra was also broken through on each side, immediately behind the articulating processes, so that its spinous process, and spinal plates, were entirely separated from the other parts. The body of the bone, and its articulating processes, carrying along with them all the cervical vertebræ above, had slipped forward about a quarter of an inch; while the spinous process and spinal plates remained attached to the first dorsal vertebra as usual; though of course quite moveable upon it. This displacement sufficiently accounted for the unusual hollowness which was perceptible during the life of the patient, opposite the spinous processes of the lower cervical vertebræ, and the appearance of unusual prominence which was in consequence given to the spinous processes of the upper dorsal vertebræ.

The vertebral canal was laid open, by carefully removing the spinal plates and spinóus processes of all the vertebræ, from the fourth dorsal upwards. The posterior third of the cranium was also sawn off, including the posterior half of the foramen magnum, so as to expose the posterior lobes of the brain-proper,—the cerebellum from behind,—and the continuation of the spinal cord from the cranium into the vertebral canal.

The loose cellular substance connecting the dura mater or sheath of the spinal cord to the sides of the canal, was slightly injected with blood, opposite to the fracture; and here also there was a very slight appearance of narrowing or constriction of the sheath itself, but without any discoloration. The sheath being slit open, exhibited as natural an appearance as without; it was not thickened; had no unusual redness or vascularity; and had formed no adhesion to the arachnoid membrane. This membrane also seemed to be without injury; it was quite entire; and was as transparent and colourless, and as loosely attached to the pia mater underneath, as during health. The pia mater, however, opposite to the fracture, for the breadth of half an inch all round, exhibited a light purple hue; caused partly by congestion of blood in its venous capillaries, partly by ecchymosis.

A longitudinal incision was now made through the middle of the spinal cord, first from about an inch above, to about an inch below the fracture; and then this incision was extended downwards, as far as the fourth dorsal vertebra, and upwards through the medulla oblongata, and tuber annulare. To this longitudinal incision were added a variety of cross sections at different points, so as thoroughly to expose the state of the internal substance of the cord. The result of this examination was, that the organization of the cord, opposite to the bruised part of the pia mater, and to the fracture of the bone, was found to be completely destroyed for the space of half an inch; being not much thicker than cream in consistence, and of a deep purple hue, as if composed of a mixture of broken down medulla and blood; in which all distinction between the white nervous matter of the cord, and its central column of brown substance, was entirely lost. This total destruction included that part of the cord from which the last pair of cervical, and the first pair of dorsal nerves take their origin. From this point, a disorganization extended downwards, as far as the origin of the fourth pair of dorsal nerves, and upwards as far as the origin of the third pair of cervical nerves; but it did not include the whole substance of the cord, but occupied less and less of it, and was more and more confined to its central part, in proportion as it extended upwards and downwards, until it entirely ceased. It had a similar appearance to the more complete destruction already described, being of a purple hue; but its substance was not so soft. Towards its termination above, near the origin of the third pair of cervical nerves, it exhibited a slight yellow tinge, as if a secretion had begun to take place there, of pus mixed with coagulable lymph.

There was not the least appearance of disease or injury in any part of the medulla oblongata or cerebellum.

In dissecting off the soft parts from the lateral and anterior regions of the neck, in order to expose the cervical vertebræ, attention was paid to the state of important nerves which descend in these regions towards the chest and upper extremities. On the left side, they had suffered no injury; but on the right there was an ecchymosis, which extended from behind the lower extremity of the sterno-mastoid muscle, backwards to the anterior border of the trapezius, and was about an inch broad. This had stained so deeply the sympathetic nerve, above the subclavian artery, that its branches could not easily be traced further down. It had also tinged in the same manner the nervus vagus, and still more deeply the phrenic nerve; the substance of the scalenus muscle, on which that nerve lay, being injected with blood. The fourth and fifth cervical nerves, in their course towards the axillary plexus, were also tinged, though in a less degree.

The cartilage of the first rib, on the left side, was fractured through its middle.

The lungs on both sides adhered over their whole surface to the pleura costalis; but the adhesions were too strong to have been recent. There was a copious effusion of serum into the substance of these organs.

The heart was in a healthy state.

The cavity of the abdomen was not examined.

II.

Cases of Typhus Fever, with Observations on the Nature and Treatment of that Disease. By J. C. PRICHARD, M. D. F.L.S. F.W.S. Physician to the Infirmary, and to St Peter's Hospital in Bristol.

I DOUBT not that Dr Armstrong's excellent work on Typhus Fever will be productive of much benefit to the community, by directing the attention of medical practitioners to the most powerful resources which they possess, for arresting the career, or mitigating the violence of that formidable malady. There is, however, a deeply rooted prejudice in the public, and even in a considerable part of our profession, against the evacuation of blood in continued fever; and it is scarcely to be hoped, that this will give way at once to the evidence afforded by any one work, however satisfactory that evidence may be to those whose minds have not been rendered inaccessible to it, through the influence of previous opinions. * It is therefore much to be desired, that those physicians who have had opportunities of putting their practice to the test of experience, would communicate the results of their observations to the public. The greater the range of facts which shall be set before the faculty, the more speedily will that conclusion be obtained, which sooner or later must necessarily follow,—namely, a settled and universal conviction, that bleeding, and other antiphlogistic means, are not less appropriate in typhus fever than in pneumonia, though the adoption of them requires greater circumspection in the former disease than in the latter.

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* I ought to observe, that the vulgar prejudice against bleeding in various disorders is fostered and encouraged by some medical practitioners, who, to the disgrace of their profession, seek a short-lived popularity by coinciding with, and putting themselves on the side of the prevailing notions. An instance of this kind lately fell under my notice, in the case of a gentleman of plethoric habit labouring under epilepsy, for whom, in conjunction with another physician, I prescribed venesection. This gentleman afterwards went to South Devon, where he resides, and there fell under the care of a physician and apothecary, possessing extensive practice in that district. These persons assured their patient, that drawing blood in epilepsy is a practice fraught with the most imminent peril; that the frequent use of venesection is a most dangerous innovation on the more cautious methods of the old school; and that the whole tribe of scribblers, who are continually filling the medical journals with such alarming accounts of their sanguinary proceedings, deserve to be hanged up, and gibbetted without mercy, as little better than licensed murderers. I have detected many other instances, in which this kind of *ruse* has been exercised by crafty persons; but I have generally had the pleasure of observing, that stratagems in medical practice at length defeat themselves, and that the fair combatant is ultimately left in undisputed possession of the field.

During the last winter, typhus has prevailed in Bristol and its vicinity, to a much greater extent than for many previous years. It would require a more ample investigation than I am at present able to make, to shew satisfactorily to what causes the late prevalence of this disease is to be ascribed. The most obvious circumstance that presents itself, is the want of sufficient nutriment, to which the poor in some parts of this country have been subjected during the last winter, and the bad quality of the bread on which they have chiefly relied for daily sustenance. It may, however, be doubted, whether this cause has produced much effect among the stationary inhabitants of Bristol and its vicinity, although it is true that the disease has prevailed principally among people of the lowest class. The contributions raised for the relief of the indigent have been so ample, that there has not been much real want, at least of articles of the first necessity, and typhus has extended itself in many situations, where it could not be supposed that its prevalence was favoured by deficiency of wholesome sustenance. But it seems to have been introduced into Bristol by mendicants, and other vagrants, from different parts of the country; and it is not improbable that extreme privation may have rendered these persons the more ready victims of the exciting causes which give rise to this disease. The contagion first shewed its effects in the house of confinement called Bridewell, and in the passengers' wards in St Peter's Hospital, whither the beggars and vagrants of all descriptions resorting to Bristol are conveyed, and where they are detained until they can be sent forward to their parishes, or to Ireland, the native country of a great proportion of them. As soon as the existence of the contagion in these wards was known, all the measures that could be devised were taken, by order of the humane deputy-governor of the hospital, to prevent its dissemination. All the persons found to be infected were immediately removed to fever wards. Yet, as there were constantly new accessions of paupers, who brought with them the seeds of the disease, it was long before the house became entirely free from this pestilence.

The effect of free ventilation was strikingly exemplified during the prevalence of this contagious fever in Bristol. The wards in St Peter's Hospital are very small, having been originally destined for the abode of paupers, and not for the treatment of diseases, and, as the number of patients was considerable, it was impossible to prevent them from being lodged in too confined a space. Here the disease spread itself among those who could not be withheld from communication with the sick: the apothecary and the nurses, and other persons who frequented the fever ward, caught it. In the Bristol Infirmary, where the wards are very spacious and well ventilated, some patients, who laboured under fever of precisely similar character, were lodged at the same period. The Infirmary contains no fever ward, and these patients were placed in the same apartments with the other sick, yet no instance occurred of its communicating itself, either to the patients or nurses.

In a great measure, the results of my own observations on typhus coincide with the remarks of Dr Armstrong; and I can bear ample testimony to the truth of many of that gentleman's assertions with respect to the treatment of other diseases mentioned in his work. But on one point I cannot help materially dissenting from him, and that is in a pathological question, which is of considerable importance in a practical view. After having attentively noticed the symptoms and progress of contagious fever, in a great number of cases which have fallen under my observation, I am very much disposed to believe, that there is no such distemper as what Dr Armstrong, with some other authors, denominates *Simple* Typhus. I have scarcely ever witnessed a case of this fever, in which there was not some internal organ that appeared to labour more severely than the rest of the system, and exhibited symptoms which I was disposed to attribute to some local congestion, or inflammatory action, and in the greater number of instances these symptoms have been nearly unequivocal. I believe the doctrine respecting fever, maintained by Dr Clutterbuck and some others, gives too confined a view of the nature of this disease. The facts adduced by Dr Beddoes seem to authorize the inference, that, in a great number of cases, proofs of inflammation are more clearly discoverable in the stomach, lungs, or other viscera of the thorax or abdomen, than in the brain. Yet I cannot but coincide, on the whole, more nearly with Dr Clutterbuck's opinion, than with Dr Beddoes's, so far, at least, as to regard the general affection of the constitution in typhus as depending on the local disease. This opinion I know to be contrary to the most prevalent doctrine in medical schools and among medical authors; yet as many false notions have long continued to be current from the effect of their previous ascendancy, I do not consider this as a proof that my own observations are at variance with the results of general experience. There is one writer, however, who has taken the same side of this question which I am disposed to hold; and it will be seen, that the facts I have to adduce, tend, as far as their evidence goes, to confirm the opinion which he has maintained respecting the nature and treatment of continued fever. I scarcely need add, that the author to whom I allude is Dr Mills of Dublin, to whom the profession and the public are much indebted.

I shall hasten to insert, in as brief and condensed a manner as possible, some notes referring to a few of the cases of typhus, which I have lately treated in St Peter's Hospital; but I wish, in the first place, to state one or two considerations, which are favourable to the notion that this fever is a symptomatic rather than an idiopathic disease.

I am persuaded, that if any physician, who would divest himself of the influence of previous opinion, should attentively examine a number of patients labouring under typhus, he would, in almost every case, be naturally led by the symptoms to infer, that there must be some particular organ severely affected, in which was the primary seat of the disease. The idea of some deeply seated inflammation, giving rise to a train of constitutional symptoms, is much more consistent with probability and the general analogy of facts in pathology, than that of a general derangement of the whole constitution occurring independently and primarily. So repugnant, indeed, to probability has the latter opinion appeared on a closer view, that most of those adventurers in medical theory, who have framed hypotheses to account for the phenomena of fever, have thought it proper to refer the primary affection to some particular structure; some of them fancying the nervous, others the vascular, system, to sustain the first shock.

The opinion which will probably be allowed to be most consistent with the general tenor of pathological observations, will be supported, in a large majority of cases, by an appeal to facts, for it is conceded by all, that the instances are very numerous in which typhus is found, on dissection, to have been connected with local disease. It was long ago observed by Riverius, that acute and malignant fevers *very rarely* happen without the inflammation of some viscus; and this assertion is repeated even by Beddoes, who allows, that it has been confirmed "in every single epidemic where search has been made, and often without search." Why do we persist in declaring the morbid appearances which manifest themselves, and which seem to be adequate to account for the previous phenomena, to be only accidentally connected with the disease? We have only to extend the same determination to other maladies, and we immediately deprive ourselves of the whole of the resources derived for the improvement of our art from morbid anatomy.

Such has been the general evidence which anatomical investigation has afforded, and if this evidence has not been uniform, we must take into consideration the very imperfect manner in which these examinations have often been conducted. With respect to those cases which terminate in recovery, and do not give us an opportunity of anatomical investigation, we may observe, that they are chiefly such as have been treated from the beginning by those means which are calculated to subdue visceral inflammation, and that the more regularly these measures have been pursued in the early stage of the disorder, the greater is the chance of recovery. In my own practice, I have constantly observed, that the most successful measures were those that were founded on the supposed presence of some local inflammation.

It is true, that cases of typhus fever occur in which no symptoms appear, that may be considered as giving unequivocal proof of the existence of topical affection. But here it is surely more philosophical to reason from the known to the unknown, and, comparing these doubtful cases with others concerning which there is no doubt, to infer, as a *probable* fact, the existence of those morbid causes which, in the majority of cases, we ascertain. Examples are not wanting to show, that deeply seated inflammations of the viscera may exist for a considerable time, and even occasion the death of the patient, without ever giving rise to symptoms that enable the medical attendant to detect the real nature of the malady. A case was lately mentioned to me by Dr Craufuird, of Clifton, which fell under his observation thirty years ago, the circumstances of which strikingly illustrate this remark. A man was seized with the usual symptoms of typhus, and all the appearances which characterize that disease took place in their regular course, nor was the least suspicion entertained of the existence of any other complaint, or of any thing uncommon in the nature of the case. The patient lived upwards of three weeks, and after death, when his body was examined, a sac full of pus was found adhering to the coats of the duodenum, near the pylorus.

Even in fevers of a remittent type, as the yellow-fever of America, in which it seems, at first sight, less probable that the morbid action of the system depends on local disease, we are informed, on the best authority, that the cause of death is generally inflammation in the brain, stomach, or liver. And in the intermittents of Europe, we have distinct proofs of the existence of topical affection, in those tumefactions and indurations of the liver, spleen, or other viscera, which are often the consequences of protracted agues. And we find not unfrequently, that the most obstinate intermittents, which had resisted the cinchona and other specific remedies, yield readily to venesection, freely employed, and to gentle courses of mercury and saline purgatives.

But the circumstance which, more than all others, leads me to the conclusion that fever depends on local inflammation or congestion, is the remarkable effect which I have never failed to experience from the use of topical bleeding. Patients in the early stage of typhus, who complain of severe pains in the head, attended with intolerance of light and suffused eyes, which are the frequent precursors of delirium, are, as I have constantly observed, much more relieved by local bleeding, as by leeches, applied to the forehead and temples, and followed by blisters, than by general bleeding; and a similar remark applies to the cases of congestion or inflammation in other parts of the body.

From the 12th of January last, until the 12th of the following May, forty-one cases of typhus occurred in St Peter's Hospital, or were received into it from Bridewell or other places. Out of this number five patients died. It must be observed, that the latter were either persons of advanced age, and previously very infirm, who had for many years lived as paupers in the house, or they were cases in which there was no opportunity of adopting the appropriate means during the early stage. Of those patients who were not very old and infirm, and for whom topical bleeding and other similar means were prescribed within ten or twelve days after the attack, the whole number recovered; and the alleviation of the symptoms followed so closely the use of the means employed, as to leave no room for doubt that it was effected by them.

I shall begin by stating briefly a case, in which I had it not in my power to adopt the means I wish to recommend, until it was too late. This case may be compared with others which occurred under precisely similar circumstances, and which resembled it closely in the early symptoms, but which were differently treated, and had a different result.

March 15, 1817.—William Bostock, aged 14, of robust and healthy constitution, has been troubled during the last nine days with frequent rigors, followed by accessions of heat, and with constant headach. He now complains of violent headach, and pains in his back and limbs. His skin is hot and dry. He has great thirst. His tongue is covered with a brown fur. His bowels rather constipated. Pulse 100.

He was ordered to take immediately half a drachm of a cathartic powder, composed of one part of calomel with four of jalap; and, at night, a draught, containing Liq. ammon. acet. ℥ss., Aq. menth. sativ. ℥i.; and blisters are applied to his temples.

16th.—Continues without any perceptible relief. The bowels have been freely opened; pulse 100.

℞ Pulv. antimonial.
Submur. hydrarg. āā gr. ii. Sumend. omni tertiâ horâ.

17th.—He is rather better; pulse 100. Continues the powders.

19th.—He has very little fever, but is still languid.

During the next four or five days he seemed to be getting better, and even went occasionally out of the ward, but still complained of great languor, torpor, and weakness in his limbs. On the 25th he complained again of violent pain in his forehead and through his temples; his skin was hot and dry; his tongue brown; pulse 120; pupils contracted; and he had nausea, and a disposition to vomit. This was the nineteenth day from the beginning of his indisposition.

Sumat submur. hydrarg. gr. v. sextâ qq. horâ.
Hirudines xii. super temp. admoveantur.

26th.—He is not relieved in any respect. Pulse 120; bowels open; stomach is very irritable, and rejects everything; headach severe.

Capilli abradantur, et vesicatorio occiput et vertex cooperiantur.
Repet. submur. hydrarg.

27th.—Says his head is very full of pain; tunica conjunctiva inflamed; groans, and grinds his teeth frequently; is occasionally delirious, but conscious when roused; pulse 130, small.

Hirud. viii. temporibus.
Submur. hydrarg. gr. vi. sextâ qq. h.

28th.—Continues under great languor and depression; frequently sighs; pulse 160; bowels costive.

Enema commune statim injiciatur, et repet. vespere.
Hydr. submur. gr. x. statim sumenda.

29th.—Has had four stools during the night, dark-coloured, and offensive. He is speechless, but still remains conscious, and free from delirium; head very hot; pulse 160, and feeble.

He was ordered to take an ounce of port-wine occasionally.

8 P. M.—The wine renders him hot and restless; tongue of dark-brown colour, and dry.

Omitt. vin.
Hirud. viii. temp. Hydr. submur. gr. x. statim.

30th.—He has had a restless night; pulse 165, very small; skin hot and dry; he lies in a comatose state.

At 10 P. M. he expired. The apothecary was prevented from examining the body, by the interference of his parents.

The following cases I had an opportunity of treating according to the method I have above recommended.

March 25, 1817.—JOHN FRANKNELL, aged 22, of spare habit, low stature, says he has suffered much from headach during the last six days, but was able to go abroad until yesterday evening, when he was attacked by cold shiverings, succeeded by heats, sickness, and thirst; he labours under general anxiety, and appears to have some oppression in his chest; countenance languid and anxious; great prostration of strength; pulse 100; tongue covered with a dark-brown fur. I prescribed as follows:

Sanguinis emittatur ex brachio libra i.
Emplast. cantharid. sterno imponatur.
℞ Hydrarg. submur. gr. vi.
Pulv. antim. gr. iv. M. ft. pulv. sumend. statim.
Sumat ol ricini ℥ss. hac vespere.

26th.—His pulse has become more frequent since the bleeding: it is now 120; suffers less anxiety and oppression; skin hot and dry; complains of pain all over his body, as if he had been beaten; throbbing pain in his forehead and temples; bowels freely purged.

Capilli abrad. hirudines viii. temporibus imponantur, et vesicatorium nuchæ.
Sumat hydr. submur. gr. iv. et pulv. antim. gr. iii. quarta qq. h.

27th.—Bled very freely with leeches; head not so painful; feels himself better than yesterday; pulse 105; bowels open.

Repet. med.

28th.—Is considerably better; tongue still covered with a dark greenish-brown fur; he is very languid and stupid, but suffers no pain; pulse 120; bowels open.

Repet. med.

29th.—Complains of nothing but extreme weakness; pulse 100. Last night he had some sleep.

Repet. med.

30th.—Tongue considerably cleaner; bowels open; pulse 100.

Sumat. pulv. bis in die solummodo. Milk diet.

31st.—Free from fever; very languid; bowels open; pulse 100.

Let him have some meat, and a pint of porter daily.

April 3d.—Rapidly convalescent. Sent to the Convalescent ward.

CASE III.

March 18, 1817.—JAMES LEGGETT, ætat. 11, has complained of pains in his limbs, with frequent shiverings, during the last two days. About two o'clock this morning his head became very painful; skin hot and dry, with a troublesome degree of thirst; tongue covered with whitish fur; pulse 120, rather full, and not deficient in strength.

Sanguinis ex brachio emitt. ℥vi.
Pulv. cathart. (composed as above mentioned) gr. xii. statim, et eadem dosis vespere.
Haustus effervescens tertiâ qq. horâ.

8 P. M.—Bowels freely opened; head not relieved.

Hirud vi. temporibus imponend.

19th.—Continues nearly in the same state as yesterday, except that the pulse, which is 126, is neither so full nor so hard as it was; blood slightly inflamed.

℞ Hydrarg. submur.
Pulv. antim. āā gr. iii. Sumend horâ somni.
Repet. haust. efferves. quartâ qq. h.

20th.—Is nearly as he was yesterday; pulse 126; he has been considerably purged.

21st, 22d, and 23d.—Continues without any remarkable alteration; pulse 126.

25th.—Says his head is very much pained; talks incoherently at times, and groans much in his sleep; pulse 120.

Hirudines vi. temporibus. Pulv. cath. gr. xii. hac nocte.
Repet. calomel. et pulv. antimon. et haust. effervesc.

26th.—Head still painful; talks constantly; cannot bear the light; bowels very open.

Epispasticum capiti. Repet. med.

27th.—Says his head is not better; bowels very open; grinds his teeth frequently; pulse 126.

Hirud. vi. temporib. Submur. hyd. gr. iii. et pulv. antim. gr. ii. quartâ qq. h.

28th.—Is to-day much disposed to sleep; bowels open; pulse 126

29th.—Speaks more collectedly; tongue more moist; pulse 100; bowels open.

30th.—Considerably better; slept the whole of last night; has eaten some bread and milk this morning.

Rep. pulv. bis die. Milk diet.

31st.—Continues to improve; complains of hunger.

April 2d.—Sent to the Convalescent ward.

Case IV.

March 27th.—Peter Flatcham, ætat. 14, was attacked this morning with shiverings, and felt as if cold water were running down his back; he complains of pains all over him; skin very hot and dry; pulse 120, rather full; great prostration of strength.

Fluant sang. ℥vi. ex brachio. Pulv. cath. ℈i. statim.

28th.—Considerably better; freely purged; blood not inflamed; pulse 112; has pain in his left side, with a slight cough.

Epipast. lateri. Pulv. antim. et hydr. submur. āā gr. iv. quartâ qq. h.

Haust. anodyn. horâ somni.

29th.—Feels himself better; pulse 105; pain in his side and cough quite removed.

Repet. med.

30th.—Fever considerably abated; tongue moist; slept most of last night; suffers no pain or uneasiness.

Repet. med.

April 2d.—His appetite has returned; is in all respects much relieved.

Milk diet.

5th.—Discharged cured.

Case V.

February 1st.—John Jones, a sailor, æt. 24, has been troubled three or four days with a headach. Last night his head became violently painful; he had severe and frequent shiverings; pulse 100; tongue white and moist; he suffers anxiety, and oppression in the chest, but has no cough or pain in respiration.

Vena sec. et emittantur sang. ℥xvi.

Pulv. cath. ʒss. statim. Vesicator. sterno.

2d.—Head relieved; respiration free; pulse 100; his blood was inflamed.

Haust. effervescens cum antim. pulv. gr. ¼. quartâ qq. h.

3d.—Tongue covered with a dark-brown fur; pulse 100; says he is free from pain; bowels purged.

Repet. med.

4th.—Is considerably worse than yesterday; pulse 100, fuller; complains of much pain in his head, and of general languor and depression of strength.

Hirudines viii. sterno et iv. temporibus admoveantur; Pulv. cath. ℈i. statim. Repet. mist. salin. antimonialis.

5th.—Lost much blood by the leeches, and was much relieved; pulse 96, soft, and not full; bowels open.

Repet. haust.

6th.—Is much better; tongue now clean; pulse 90, weak; bowels quite open; he is very weak.

Let him have a pint of porter daily.

7th.—Quite free from fever; still very weak.

10th.—Is able to sit up.

Full diet.

Henceforward he continued to recover.

Case VI.

February 7th.—Sarah Flood, aged 18, has complained of headach during the last three days; was attacked last night with cold shiverings, succeeded by heats, and violent pain about the fore part of her head; pulse 106, rather full; skin hot and dry.

V. S. ad ℥x. Vesicatoria pone aures.
Pulv. cath. ℈i. statim.
℞ Hydr. submur. et pulv. antimon. āā gr. iii. tertiâ qq. h.
Haust. effervescens sæpè.

8th.—Complains much of her head; pulse 100; bowels open; blood not inflamed.

Hirud. viii. tempor. Repet. med. et pulv. cath. h. n.

9th.—Head less painful; is extremely languid; skin hot and dry; tunicæ conjunctivæ red; bowels very open.

Haust. efferv. quartâ qq. h. Let her be sponged with vinegar and water.

10th.—Is better; skin moist; tongue clean; she is very drowsy, stupid, and deaf; pulse 96, weak.

Habeat vini Lusitan. ʒi. ter in die, et Haust. effervescens sextâ qq. h.

12th.—Is considerably better. Continue.

16th.—Convalescent.

Case VII.

March 11th.—Anne Marsh, æt. 38, of stout make, and strong constitution, has complained during the last three days of headach, with pain in her limbs. This evening her symptoms became much aggravated. Pulse 112.

V. S. et fluant sang. ℥xvi. Pulv. cath. ʒss. statim, et repet. cras manè.

12th.—Pains much alleviated; still much headach; belly quite open; urine hot, and in small quantity.

Pulv. cath. ʒss. manè. Haust. effervesc.

P. antim. c. calomel āā gr. iii. sextâ qq. h.

13th.—Head better; pulse 106, not so full; bowels very open.

Repet. med.

15th.—Is considerably better; pulse 96; tongue moist; complains of great weakness.

18th.—Gone to the Convalescent ward.

Case VIII.

February 7th.—Anne Barron, æt. 40, one of the nurses of the fever ward, short, thin, and of delicate constitution, has complained of headach for some time, with a nauseous taste in her mouth. This evening the pain in her head became considerably worse, and she had cold shiverings. Her skin is hot and dry; pulse 100.

V. S. et fluant sang. ℥x. Pulv. cath. ℈j. statim.

Mist. effervescens. P. ant. c. calomel āā gr. iii. quartâ qq. h.

8th.—Not relieved; blood inflamed; bowels open; pulse 100; some pain about the chest.

Sang. emittatur ad ℥viii. Repet. med.

9th.—Head better; chest less painful; complains of her bowels being very sore; pulse 96, not full, but hard.

Emplast. canth. abdomini. Ol. ricini ℥ss. quartâ qq. h.

10th.—Is much relieved; bowels quite open; mouth sore from the mercury; pulse 96, not so hard.

Continue the effervescing draughts.

11th.—Is much better; spits freely; is free from pain.

She continued to recover, and in a few days became fully convalescent.

Case IX.

January 13th.—Mary Barlow, æt. 36, the mother of six children, short and stout, of florid and healthy complexion, was suddenly attacked with cold shiverings, and felt as if water were running down her back. These sensations were succeeded by heats. She has much throbbing pain about her forehead, general headach, and pains in her limbs; nausea; abdomen somewhat tender when pressed; bowels constipated; tongue covered with a brown fur; pulse 112, rather hard and full.

V. S. ad ℥x. Pulv. cath. ʒss. statim. Haust. effervescens. quartâ qq. h. Vesicator. abdom.

14th.—Continues nearly as yesterday; bowels well purged; pulse 114; seems to labour under some oppression in her chest, and coughs occasionally; head aches violently.

Hirud. viii. et vesicat. sterno. Vesicat. utrique tempori. Repet. haust.

15th.—Head and chest relieved; bowels open; pulse 106, not so full; skin hot and dry.

V. S. et fluant ℥viij. Let her body be sponged with vinegar and water.

16th, 17th, and 18th.—No very decided alteration has taken place, but her strength seems to be sinking; her eyes are suffused, and her countenance is expressive of great depression and anxiety; pulse 116; tongue covered with a dark-brown fur, and teeth with sordes.

I directed a small quantity of wine to be given her, noting the effect on her pulse and skin. I found that the pulse became more frequent, and the skin hotter. The wine was discontinued.

℞ Hydr. submur. gr. viii. Effervescing draughts. Ordered her to be sponged more freely, and drink cold water, acidulated with muriatic acid.

20th.—Has had a restless night; calomel operated freely. She has completely the aspect of a patient in the advanced stage of typhus. She complains chiefly of her head, and has some oppression in respiration, with pain in her chest.

Leeches and a blister were ordered to be applied to the chest, and eight leeches to the temples.

21st.—She is considerably relieved, both in her chest and head. She is now free from pain; pulse 100; is extremely weak.

Haust. effervesc. tertiâ qq. h.

22d.—Has no pain; very weak; tongue clean; pulse 96.

25th.—Free from pain.

Let her have broth.

30th.—Convalescent.

CASE X.

March 13th.—PATIENCE CROFT, æt. 22, of a strong and healthy constitution, has had headach during the last fortnight. She now complains of throbbing pain about the head, and of aching pains in her limbs; frequent shiverings; pulse 106, rather full.

V. S. et emittantur sang. ℥xvi. Emplast. cantharid. utriq. tempori. Pulv antim. et hydr. submur. āā gr. iii. quartà qq. h. Haust. effervesc. sæpè.

15th.—Head better; limbs less painful; blood inflamed; bowels very open; pulse 80.

16th.—Considerably better; mouth sore.

Omit the powder.

18th.—Convalescent.

I have the notes of a much larger number of cases lying before me; but omit to copy them, on account of the undue space they would occupy in your Journal. It will be sufficient to say, that they are, with respect to the evidence they afford, similar to those above detailed.

It will probably be thought that much greater effect is here apparently consequent, and that I have placed more dependence on very small bleedings, than is conformable with general experience. But it should be remembered that the patients, of whose cases I have given the outlines, had been, in almost every instance, half starved, before they became affected by typhus fever; and I have always found that a few ounces of blood taken from patients under such circumstances, produce more effect on any inflammatory disease they may labour under, than much larger quantities from persons who had been previously well fed. At the Infirmary, where the patients are of a different description, being, for the most part, domestic servants, and other persons in less abject condition than the paupers in St Peter's Hospital, and in private practice, I have found it necessary to prescribe much more copious bleedings in order to produce similar effects.

Some of the above cases were so short in their progress towards recovery under the use of the evacuants administered, that the peculiar symptoms of the typhoid state had scarcely time to develope themselves, and a doubt may hence arise in the minds of some readers, whether they were genuine cases of typhus or not. In order to be convinced that they were such, it was sufficient to witness the circumstances of the origination of the disease in every single instance. I believe there was scarcely one patient whose malady could not be distinctly traced to infection. As a proof of the virulence of the contagion, I may mention, that, at the beginning of the period through which it prevailed, a man who assisted in carrying to the grave the body of a patient who died under this fever, was seized with rigors immediately after his return, and expired on the third day.

It must be allowed, that purging seems to have had a considerable share in mitigating the febrile action in these cases. It will be observed, also, that mercury was given in such a way as to affect the system, at the same time that it acted freely on the bowels. I always observe, that those patients whose mouths can be made sore, recover; but mercury often fails to produce this effect without bleeding, and it was evident to those who observed the progress of this fever, that the latter remedy, and especially topical bleeding, had by far the most decided effect on the disease. I may remark, that the apothecary, who, beforehand, was by no means inclined to think favourably of venesection in fever, was, during the prevalence of this contagion, so fully persuaded of its good effects, that, being attacked during his unremitting attendance on the sick, by the first symptoms of the fever, viz. severe rigors, headach, sickness, and excessive languor, and being convinced that he was infected, he immediately opened a vein in his own arm, and suffered about two pounds of blood to flow. On the next day he was nearly well.

For the notes of the above cases I am indebted to Mr Morgan, the apothecary to St Peter's Hospital, to whose assiduous and humane attention the poor of this city have been, on the present, and on many former occasions, greatly indebted.

Bristol, May 31, 1817.

III.

On the Mercurial Treatment of Yellow-Fever. By J. B. SHEPPARD, Member of the Royal College of Surgeons in London, and Surgeon in the Royal Navy.

"Obstat quicquid non adjuvat."—QUINTILIAN.

THE various and opposite opinions which have been entertained respecting the nature and origin of the Yellow-Fever, from our earliest acquaintance with the disease, have given rise to a corresponding diversity of treatment, which has proved a constant source of embarrassment to the inexperienced, and of the utmost prejudice in its consequences to the interest of those whose welfare has been involved in the accuracy of the adopted pathology: the notorious contradictions which characterize the different creeds, would seem to preclude the hope of even an approximation of sentiment on this interesting subject. At one period, an erroneous nosological arrangement inculcates a treatment strictly stimulant, which occasionally yields to an opposite pathology, directing an active evacuant system; by others, viewed as a specific disease, it is opposed by a supposed specific remedy; while another class, vaccillating between opinions, or desirous of availing themselves of every probable means of success, have recourse to the combination of the two latter practices, from which they anticipate more favourable results than from a solitary adherence to either. All these systems have had their seasons of ascendancy and of disrepute, supplanting each other again and again, in obedience to the predominant doctrines of the day. There is no want of evidence on record of the success of the whole of them;—of their failure we can best judge from the appalling aggregate mortality of the West Indies during the last quarter of a century. To those most conversant with the formidable nature of the disease, the latter circumstance will be less a source of surprise than the various triumphant accounts which daily meet the eye, many of which the more candid and best informed will be disposed to impute, rather to a comparatively mild form of the disease, than to any effect connected with treatment,—an explanation not the most flattering to professional vanity, but which, in truth, however much it may be a subject of regret, ought not to derogate from the value of the art; for although there may be a degree of yellow-fever which bids defiance to the powers of medicine, it is consoling to know, that subordinate forms of the disease more frequently prevail, in which we can take an active and eminently useful part. In proportion to the justice of our views of the nature of the disease, and the energy with which our curative measures are directed, will be the chance of arresting early fever, and of rescuing the patient from a succeeding state of the greatest suffering and risk; while by injudicious treatment the disease may be protracted, and even an originally harmless form of fever converted into one of extreme violence and danger; or, what more frequently happens, the period for doing good may be consumed in the exhibition of inert remedies, and the patient permitted to sink into the grave, without an adequate effort for his preservation. The latter mode of proceeding applies strictly to the exclusive mercurial practice, on which it is at present my object to throw out a few observations.

It may be thought, that the ascendancy which the depletory treatment has of late years acquired in the West Indies, and the reprehension which the indiscriminate mercurial practice has received from time to time from more able pens, might preclude the necessity of further comment to accomplish its abolition; and I am aware, that to some these remarks may appear to be opposed to a phantom of my own imagination.

Adverting, however, to the stress which has been laid by some recent writers on the beneficial combination of the mercurial and depletory practices in this and other fevers, by some of whom mercury is still designated as the chief means of cure; and knowing that the exclusive treatment by mercury had still its adherents when I quitted the West Indies a few years since, I am led to believe that the evil, even in its present limited extent, is of sufficient magnitude to warrant a free exposition of its effects, without incurring a just imputation of the offence of supererogation.

In order to appreciate the causes which may have led to the diffusion of the exclusive mercurial treatment of yellow-fever, it will be necessary to glance at the state of the colonies at the period of its introduction. In the year 1793, the remote cause of yellow-fever appears to have existed in most of the West India islands in a high degree of concentration, far exceeding that of many preceding years: the varying states of energy of the endemic cause in different years being cognizable only by their effects, an obvious difficulty accompanies every attempt to investigate the nature of the atmospheric modifications on which such vicissitudes probably depend. I do not profess to enter into such inquiry. It is probable that, in addition to a difference of *degree*, there may be some unknown change in the *nature* and *constitution* of the noxious miasmata; and, on this point, in explanation of the occasional attacks of the natives and long residents, M. Humboldt remarks, that a very slight variation is sufficient to destroy immunity in those whose organs are become exquisitely sensible of variation from immutable uniformity of meteorological succession; a proposition which he illustrates by reference to Galvanic experiments, which prove that chemical agents excite not only by their quality, but by their order of succession also. The severe aggravation of the endemic in 1793, succeeding a long interval of comparative exemption, was considered to be capable of explanation only by reference to a contagious source, which was supposed to be traced to a new pestilence imported from Africa into the West Indies. Subsequent experience and investigation have shewn the fallacy of this assumption. The scientific traveller above referred to observes, "The opinion that the yellow-fever was imported from the coast of Africa into Grenada, and from thence into Philadelphia, is equally destitute of foundation with the hypothesis, formerly very generally believed, that a squadron from Siam introduced the vomito into America." The truth of this statement of M. Humboldt is now very generally acknowledged; and even those who, to express their belief of the contagious nature of yellow-fever, inappropriately retain the name which, on that occasion, was conferred on it, in reference to its imputed foreign origin, do not contend for the validity of the African importation.

The sensation which the mortality of that period excited, is a proof how much that of former visitations must have been effaced from the recollection, to make it a subject of such surprise and novelty. We are now unfortunately familiar with many parallel events; and I believe there is a very general concurrence of sentiment, that they are to be ascribed to purely physical and local causes; an opinion which has received abundant corroboration from the absence of contagious properties in the various epidemics which have subsequently prevailed within the tropics, as well as from the unequivocal refutation of the accuracy of the data on which the assumption of importation was originally grounded.

That the germ of yellow-fever was that year developed in an intense degree of force, and possibly with some variation of constitution also, is proved by the non-exemption of even the natives and long residents; and the great mortality which succeeded, and gave rise to the opinion of an imported new pestilence, was the inevitable effect of an unusual accumulation of unassimilated Europeans in an augmented military and naval force, and in merchant-ships collected into convoy masses, in consequence of the recently declared war. The exposure of these men, strangers to the climate, to an exalted power of the noxious cause, is surely an adequate explanation of the vast loss of life which was then sustained, without reference to a contagious origin.

It may not be considered irrelevant to remark, that the events of the last year in the West Indies, in regard to yellow-fever, bear a close analogy to those of 1793: the political changes consequent to the peace of 1815, as in the instance of the new war in 1793, had the effect of introducing an increased number of northern strangers into the colonies; the coincidence of a similar aggravation of the intensity of the endemic cause, has produced a similar result. Of the sufferers on the late occasion, the new garrisons of the French islands appear to have formed a large proportion. France having been deprived of the last of her West Indian colonies in 1809, the troops in her garrisons, after their restoration at the peace, were necessarily strangers to the climate.

To return to the period of 1793, the public apprehension was naturally commensurate with the mortality; and as credulity generally keeps pace with apprehension, can we be surprised that the doctrine of importation received general and implicit belief?

A new and specific character being given to the endemic, a specific remedy was speedily proposed, and mercury announced as the only medicine capable of arresting its progress. It was held to be incontrovertible evidence of the efficacy of the remedy, that, in those cases where the sensible effects of mercury took place, recovery usually followed; and although the mortality under the new treatment continued to be excessive, yet as the greater number with ptyalism recovered, the failures were not permitted to affect the reputation of the practice.

It is probable, that the observation of the fact of the salivary glands being unintentionally affected, in some cases of recovery, by the calomel combined with the purgatives, may have led to the inference that the declension of fever was the effect of the salivation, whereas the converse of the conclusion is the truth; for, although the two events may appear to be synchronous, yet, as experience proves, that all attempts to excite the specific action of mercury in a system labouring under a high degree of fever are perfectly unavailing, until the fever be moderated by other means, we are justified in concluding, that the declension of fever, and the supervention of salivation, stand in the relation of cause and effect.

The coexistence of febrile and mercurial action is generally admitted to be incompatible; if therefore the action of mercury *could* be superinduced in violent fever, we should be possessed of an invaluable remedy; but in a high degree of fever we find mercury to be utterly powerless, in whatever quantity or manner it may be exhibited; and if exclusively confided in, the disease pursues its march unchecked, to disorganization and death, without the appearance of any sensible effect from the mercury employed. On the other hand, if a mitigation of fever takes place, whether spontaneously in the milder cases, or from the employment of more efficient measures in the more severe, then salivation begins; and what is in truth a mere effect, and test of the cessation of fever, and in no degree contributory to the cure, is, by the advocates of mercury, exalted into the sole or chief cause of such salutary event. If, then, in the subordinate forms of yellow-fever, the operation of mercury is found to be superfluous, and in the more severe, its employment is ineffectual, it will be difficult to imagine a case of the legitimate disease in which the adoption of the practice is indispensable; while it must be admitted, that an exclusive reliance on that remedy in all cases of serious import, is not merely futile and deceptive, but replete with the greatest danger.

The insensibility of the system under active fever to the stimulus of mercury, has been universally observed, and generally referred to derangement of the function of the absorbent in common with other parts of the system during the presence of the morbid actions which constitute fever. When these actions cease, the absorbent function is restored, and the mercury previously exhibited, which until then had lain dormant, is taken into the system, and its sensible operation rapidly excited; but whatever may be the received opinion of the cause of such insensibility in that condition of the system, the fact itself is palpable, and perfectly conclusive as to the inefficacy of mercury as a remedy in active fever.

It is every day remarked and lamented, that we are so little benefited by the errors and failures of our predecessors, and that our lessons must be dearly purchased in the school of experience, to be deeply imprinted on our recollection. This would be of comparatively little moment, did the consequence devolve upon ourselves only; but it assumes a widely different aspect and interest, when the lives that are entrusted to us become the price at which wisdom is to be purchased. I cannot therefore sufficiently deprecate a repetition of fruitless attempts to mercurialize the system, to the exclusion of more efficient measures; or sufficiently caution the inexperienced against the vain expectation of achieving what others of the greatest talent and perseverance have failed to effectuate. The consequence is doubly injurious; it is not only the loss to-day, which the industry of to-morrow may redeem; it too often involves the loss of those moments which cannot be retrieved,—when only the medical art can afford any effectual relief. These reflections are forced from me by a contemplation of the awful amount of mortality that has taken place in the West Indies; and by the painful apprehension, that, on many occasions at least, this might have been diminished by a more efficient practice. It should, however, be recollected, that it was the bounden duty of those on whom the treatment of this disease devolved, at one time, to give every trial to a remedy so (otherwise) potent, and so highly praised; but after it has been so amply tried, and found wanting, the perseverance in a vain experiment is surely incurring no common responsibility: and therefore, it is at least to be hoped, that they who are still inclined to put it to the test, will employ those efficient measures at the same time, which are at once most conducive to its specific effect, and of themselves afford the most reasonable hope of subduing so formidable a disease.

The advantage of the combination of the mercurial with other treatment, I believe, however, to be very questionable. In the more rapid and dangerous cases, in which two or three days decide the fate of the patient, (independent of the absolute inertness of mercury in high fever) there is not, in the majority of habits, *sufficient time* for the operation of the remedy to be excited, before the disease is either cured by more efficacious means, and salivation becomes worse than useless, or, in the less controllable forms of attack, the patient is irrecoverably lost. Still I admit, that the combined practice does not involve the serious objections which attach to the exclusive dependence on mercury, and am chiefly solicitous to detract from its rank as the principal means of cure. As a cathartic, the employment of calomel in early fever is acknowledged on all hands to be highly beneficial; but from the uncertainty of its operation, where there is much heat or torpor, it should not be trusted to alone, but always be given in combination with other purgative substances.

With regard to the remedies to which I have adverted, as possessing more efficiency than mercury in the cure of yellow-fever, I have nothing new to propose. From the experience of many years within the tropics, I am disposed to coincide with those who believe that the disease, in the highest degree of concentration, is irremediable by any known means in medicine; for I have remarked, in this extreme case, that whatever plan of cure may be adopted, the rate of mortality remained unaffected by variety of treatment. Although this exalted character of the endemic is not rare, when a sufficient number of proper subjects is accumulated, yet, comparatively speaking, it may be deemed unfrequent when contrasted with the great number of cases that are classed and cured under the title of Yellow-Fever. In the minor degrees of violence of this fever, there is perhaps no disease in which the valuable powers of medicine are more decidedly displayed. The treatment may be comprised in a few words. The disease exhibiting violently inordinate actions in the beginning of the attack, early and commensurate depletion, copious purging, with the abstraction of superabundant heat, and the interruption of morbid associations by the affusion of cold water on the surface, comprehend the resources in which we may place the best grounded confidence that it may be subdued at an early period of the invasion. Should these remedies fail in obtaining an early mitigation of the symptoms, I cannot say that I have observed much decided good from medicine in the subsequent stages of exhaustion. It is our imperative duty, therefore, to direct all our exertions and means to a decisive impression on the system during the first hours, so as to cut short, or greatly to check the march of the fever. I must however here observe, that, though I have always bled decidedly in the early

Dr Dickson, whose opinions on this head I had ample opportunities of knowing, while I was surgeon of the flag-ship on the Leeward Island station, and who, from being furnished officially with the weekly reports of the respective surgeons of the fleet, possessed the most extensive sources of information, conceives that the mercurial influence is incompatible with a great degree of heat and vascular action; and that the most profuse exhibition of this medicine is unable to induce its specific effect during a state of high excitement, as well as in that form of fever, where the sensibility of the system is greatly impaired; where there is time, that is, in protracted instances, where the fever has abated, and the patient, having survived the danger of the earlier stage, labours under symptoms of congestion or organic disease, he is of opinion that mercury is often of the greatest service. But in this first stage of the concentrated endemic, he has generally found every attempt to produce ptyalism to be altogether fruitless, and he therefore concludes, that the cases wherein this has been effected must be referred to a remitting or milder form of disease; and fully coincides with those who are of opinion that salivation "is not the cause, but simply an indication, of the cessation of fever." (Edinburgh Journal, January 1813.)

Dr Macarthur, who necessarily enjoyed ample opportunities of determining the question at Barbadoes, in a report to the naval medical board, which was afterwards published, states that, in the fevers of the crews of the Saint Lucia, and of the Amelia, in 1804, the mercurial practice was pushed to its utmost extent. "The submuriate of mercury," he continues, "in large doses given by the mouth,—mercurial frictions applied to the surface, alternated by the hot and cold baths to induce ptyalism,— were assiduously and perseveringly employed; but, however protracted the fever might have been, no instance occurred where the mouth could be affected in the worst fevers, which terminated in death. In the mild fevers, or where recovery began before the first thirty-six hours, ptyalism was easily induced before the expiration of that time. Many cases of protracted fever have occurred at this hospital, where the mercurial plan was omitted some days before there was any sign of convalescence, but the mercurial action in the mouth did not appear until the fever evidently had ceased, and it increased for some days with the convalescence of the patient. In other cases, where the mouth had been made sore by the mercury exhibited, the patients have had a relapse, and during one night the soreness of the mouth entirely disappeared. It is, therefore, evident, that so long as the morbid actions which constitute this fever existed, no mercurial action took place; but as soon as the fever ceased, the mercurial disease commenced. Ptyalism, therefore, was not the cause of the cessation of fever, but the consequence, and the soreness of the mouth only becomes a test of the absence of fever. But the patient pays too dear for this test, if it shall confine him to the hospital, or to his room, for three weeks or a month with a severe salivation, when otherwise, in one week, he would have been able to have returned to his ordinary duty or occupation. Mercury, such as the preparation of the submuriate, has been employed with much advantage as a purgative."

Mr Mortimer, late surgeon to the Naval Hospital in Barbadoes, in his Official Report on Yellow-Fever, observes, that from three to eight grains of calomel were exhibited by him every third hour at Mariegalante, aided by mercurial frictions, unlimited as to quantity; but in few instances, and in those only as a purge, did it evince any positive effect. The fever subsiding, salivation has come on; but however profuse this became, and, consequently, however protracted the recovery, it afforded no additional security against a future seizure. He farther states, that in all the other public situations which he has held, the only result from calomel, during high febrile action, was as before stated, and that not often; while, on the other hand, he has observed much distress to accompany the ptyalism, without any ultimate advantage: so that he cannot consider it in the light of a remedy, unless when combined with a cathartic. (Med. Chir. Journal, March 1817.)

Lastly, the latest writer on fever, though partial to the use of this medicine in that disease, admits that, "while the system continues under the influence of fever, ptyalism is not easily produced." (Armstrong on Typhus, p. 155.) And if such be the case in the comparatively mild and remediable fevers of this climate, some estimate may be formed of its total incompetency in so rapid and uncontrollable a disease as yellow-fever during the inordinate actions of the first stage, the march of which can only be checked by depletion; and, in fine, when only the powers of medicine can be applied with any well-founded hope of success.

Mercury has been recommended as a prophylactic. On this point I do not profess to speak from experience. The rationale of the practice would seem to be grounded on the idea, that whatever cures, necessarily prevents;—an assumption, the fallacy of which I need not expose; for, even were the antecedent true (which I trust has been sufficiently disproved), the consequent would be false. Strict temperance, and a gradual initia-tion of the system to those assimilatory changes which the organization of every person exposed to the influence of a tropical climate is destined to endure, will, I believe, be found to afford a more reasonable prospect of security (at least from violent attacks), than the temporary change in the constitution which a saturation with mercury may create.

Witney, Oxfordshire, 2d July 1817.

IV.

Observations on Inflammation and Brain-Fever. By JAMES WOOD, M. D. Newcastle.

IN 1793, in a publication on Fever, I remarked, that, in ophthalmia, we met with inflammation of two kinds, requiring opposite means of cure; the one from debility would not admit of depletion, but the other, from too high action, was capable of being cured both by depletion and stimulants. I observed * that this view in the treatment of the latter, of its being cured by opposite means, had removed my greatest difficulty in the investigation I had begun; that it solved questions before inexplicable, reconciled apparent contradictions, and gave the most satisfactory explanation of the adage that "doctors differ." It explained how recovery in typhus took place, both under the cooling and stimulating plan of treatment, how both plans were successful in burns and scalds, and, carried to a similar diseased action of the brain, how brain-fever was cured by opposite means. I observed in the same paper, * that, "in all such states, I have been invariably successful by the application of cold, with the aid of purgatives; and yet I cannot doubt, from what I have heard and read, that such states have been cured by the use of stimulants. Although, then, common inflammation, typhus fever, brain-fever, and other similar states of diseased action, are capable of being cured by different, and nearly opposite means, yet it does not follow, that both means are equally good, and that one has not the preference to the other. The cooling plan of treatment, or that of directly lessening diseased action, must always have the preference by every mind that is open to true philosophy, in every instance in which it can with safety be applied; it being not only the most simple plan, but the cure, when it can be effected by the cooling plan, is always obtained at less expence to the constitution, than when it is effected by the opposite means." These remarks, then, (in 1808) arose from the stimulating plan of treatment being prevalent in this place. In 1813, No. 33. of the Edinburgh Medical Journal, appeared a paper by Dr Armstrong of Sunderland, on the treatment of brain-fever, in which he recommends wine and opium as the best means of cure; and he quotes a paper written by the late Dr Pearson, of this place, in corroboration of this treatment being successful. The paper by Dr Pearson was not much noticed here, both from its style, and other circumstances known in this place; but, when quoted by Dr Armstrong, I did feel a strong wish to shew that the contrary treatment had been invariably successful with me. Illness soon after interrupted all my plans; and it was only lately, on the appearance of Dr Armstrong's late excellent work, and on the review of it in the Edinburgh Medical Journal for January last, that the subject was brought to my recollection; and the following extract from that review is remarkable:—" He furnishes us also with some good observations on the delirium tremens, or fever of drunkards, for which large and repeated doses of laudanum have been so much recommended. Dr Armstrong's experience renders the universality of this remedy more than doubtful. Bleeding is sometimes, and purging always, useful; and the cold affusion, even when the patient is drenched in sweat, he has found both safe and useful." I was not a little gratified on reading this; and I think I can add, from my experience, something to the means of cure mentioned in this extract. All wine, and fermented or spirituous liquors, must be immediately and wholly withdrawn, and the patient kept from light and noise. Milk I found the best article for diet, with cold fruits. Tea I did not find hurtful, but coffee evidently so. In addition to purgatives, for which I used Epsom salts, I gave the patient freely of magnesia in the camphorated mixture. Much depends on the application of the cold water to the head. Cold affusion alone often did not succeed, when large cloths, dipped in the coldest water, and one after another applied quickly to the head, produced the wished-for effect, and sleep followed. I never found this effect fully produced until the application of the cold cloths induced *shivering*, and the cold had almost become intolerable to the patient, when he soon fell into a sound sleep for thirty or forty hours. *The*

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* In 1808, in a paper in the London Medical Journal, on the treatment of Burns and Scalds, No. 109.

pulse was always reduced from twenty to thirty pulsations in the minute, by the application of the wetted cloths to the head. When sleep has taken place, the patient always awakes quite well. I have known several deaths take place under the plan of treatment by laudanum and wine, and I have not known one death under the cooling plan. I can give a case, in which both methods of treatment were experimentally (as it were) gone through. Mr G. A. spirit merchant and grocer in this town, was seized with brain-fever, and the plan by laudanum and sherry wine fully tried for several days, and without any abatement of the symptoms. His wife, being told that Mr ——, a near neighbour, had had the same disorder, and had soon recovered under the plan of treatment that had been directed by me, desired my attendance on her husband, whom I found under all the violent symptoms of the complaint, much weakened, and very unmanageable. I adopted the cooling plan, with purgatives, but allowed some wine, on account of his weak state. Next day the symptoms were much the same, and also on the following day, when the wine was laid aside. The third day, though appearances were less unpleasant on the whole, still he had got no sleep, and false visions and notions were constant, and much disturbed him. I inquired whether the application of cold water to his head was properly made, and, doubting this, I attended in the evening to superintend the application, and, by great perseverance, I *brought on shivering* and loud complaint of cold from the patient, when it was given up, and he soon after fell asleep, and did not awake until the following evening; and after another night's sleep, I found him quite well, and he was, as well as his family, always grateful afterwards, for my exertions.

I trust that publicity being given to the above facts and remarks, in the same Journal in which the treatment formerly recommended by Dr Armstrong appeared, that many, who may not have noticed Dr Armstrong's late recantation, may thus have their attention fully drawn to the subject, and confirmed in the evident superiority of the cooling and purgative plan of cure.

Newcastle, June 18, 1817.

V.

Case of Stricture of the Rectum successfully treated. By Mr G. F. Edwards, Member of the Royal College of Surgeons, and of the Society of Arts, &c. London, and Surgeon at Bath.

On the 26th of November last, I was requested to visit Mrs T. of this city, a lady about 50 years of age, of a sallow complexion, and spare habit. She complained of a sense of heat, and occasional pain about the situation of the os sacrum, particularly when in an erect position, or when her bowels were more confined than usual. At this time the tongue was very much furred, and the pulse about 120 in a minute, with a hot skin, and urgent thirst. As she complained of no other symptoms of fever, nor at any time experienced any peculiarity in her constitution, except now and then slight pains about the back and hypogastric region, and as her bowels at this time were very much confined, I ordered a three grain calomel pill at night, and a saline aperient in the morning; requesting that the evacuations might be set aside for my inspection.

On the morning of the 27th, I found my patient very much relieved from the above symptoms, by free evacuations from the bowels, of a dark appearance, and fetid odour, which seemed to have been of long accumulation, from the many hard pieces which floated in the liquid stools. I ordered a continuance of the saline aperient every morning, which in a week apparently removed all the complaints she then felt. Accordingly in this anticipation, I took my leave.

About the middle of March last, and four months from the preceding attack, I was again sent for under similar circumstances as the above, with this exception, the symptoms were more violent, and the constitutional derangement more marked. At this time, also, the bowels were very much constipated, and when she had an evacuation, a sensation remained as though she still wanted to pass a stool. This effort occasioned considerable pain (and bearing down) about the situation of the os sacrum, and also a corresponding pain at intervals in the hypogastric region. I conceived, from this combination of symptoms, and from their recurrence, that some peculiarity existed more than is common to mere constipated bowels; and could not divest myself of the idea that these were symptoms of contracted rectum.

Prior to the adoption of any efficient plan for the mere relief of the bowels, and feeling a desire to be satisfied relative to the exact state of the same, I directed a table spoonful of castor oil to be taken early in the morning, and requested that each motion should be set aside. On examining the evacuations, I was confirmed in my suspicions of contraction somewhere in the lower part of the intestinal canal, as the first motion was one continued string of dark hard feces, about the size of a common goose quill, which was expelled with considerable exertion and pain. The others, several in number, were small, but not figured. She was, however, considerably benefited by the bowels being thus relieved from their contents; yet she expressed the same sense of feeling, as though something still remained to come away.

It became my duty to communicate my suspicions of the nature of the complaint, and likewise the necessity of being allowed to make an examination, in order, if possible, to accurately identify the deranged state of the bowels, and to investigate the peculiarities connected with the important symptoms produced by the constipation; and, as the intestines were fairly emptied by the operation of the oil, I considered this the most favourable time for my purpose. After some little hesitation, my patient consented.

On passing my finger into the rectum, considerable resistance was opposed to its progress, probably from the combined agency of contraction, and that disposition of mind which excited irritance and spasm. After waiting some little time, I found the gut dilate, and yield to the gentle pressure of my finger. About two inches up, on the sacral side of the rectum, I could distinctly feel a thickening of the inner membrane, as it were in lines, which intercepted the progress of my finger, and appeared like small folds intersecting each other. At this point, the examination gave considerable pain, and my patient expressed herself in the same manner, as when she described the pain occasioned by an evacuation. After some time being spent in waiting, I succeeded in getting my finger beyond these obstructions; and, as far as I could reach, a small aperture was distinctly felt (resembling the os tincæ when dilated in a trifling degree), with a circumscribed base of a soft texture, which I conceived to be a reservoir of accumulated feces. In order to be satisfied still further of the true nature of this aperture, I took a large sized urethra bougie in my left hand, and making the finger of my right the direction, I passed it through the aperture with difficulty, into the colon. Being fully persuaded, not only of the existence of a very considerable stricture, but of general contraction of the rectum, I carefully withdrew the bougie, and, as near as I could ascertain, the great contraction appeared about the sigmoid flexure of the colon.

In explaining the nature of the disease to my patient, I was happy in the opportunity of observing, (that, from the circumstance of the pains wholly ceasing, when the bowels were freely open, and no matter or blood appearing on a hard motion), her case seemed to be at present contraction of the gut, uncombined with any disease, which might be relieved, and most probably cured, by the use of graduated bougies, attention to diet, and such medical plan as would remove the fever which now existed. She readily coincided with my views, and requested me to adopt such treatment as I thought most suitable. Accordingly, I again introduced a large sized urethra bougie, and continued it for a week, at the same time giving small doses of tartarised antimony, with nitre and manna, twice a-day. This plan answered every intention of diminishing fever, and obviating the costive disposition of the bowels.

As I now passed the urethra bougie with ease to myself, and advantage to my patient, I increased the size to a small rectum bougie (with which I was kindly supplied by my friend Mr White, who makes them for his own use.) At first, I found the same difficulty as with the urethra bougie (occasioned no doubt by spasm), but after waiting, and using at the same time gentle pressure, it passed beyond the stricture. I requested it might be allowed to remain until the morning, unless it caused irritation, and gave pain. It was not withdrawn until eight hours after its introduction, and then only for the purpose of a motion, which was copious, without pain, more natural, and about the diameter of the bougie.

From this time, until the end of three weeks, I continued to increase the size of the bougies, and to pass them with ease. My patient now began to find the good effects of the plan. Her bowels were gently moved two or three times a-day without pain, and that sense of retained feces having wholly subsided, as well as the uneasiness about the sacrum and hypogastric region, the febrile symptoms were very much reduced, and the pulse, which was 120 in a minute, was now only 98. The size of the bougie was again increased, and passed with very little difficulty (continuing the same medical plan.) She now complained of being low and weak, and her appetite for a better diet than gruel, &c. returning, hoped to be allowed some animal food. I ordered a little chicken, or weak mutton-broth, and persevered in the introduction of this sized bougie (about the diameter of a ring-finger) a fortnight, and then increased it to the largest sized rectum bougie but one, made of elastic gum. The substance of this new instrument being of a firmer texture, it did not so readily assume the shape of the rectum, or pass the sigmoid flexure of the colon, as those supplied by Mr White. But by patient perseverance I at length succeeded, and it has now been used upwards of three weeks with advantage.

As my patient has had no return of pain in the bowels or loins, or felt any sort of inconvenience for some weeks, with returning health and strength, I allowed her to partake of animal and vegetable food in small quantities, and also to try the effect of ripe fruits, since which her bowels have acted more naturally. The excretions from the intestines are more defined, and in diameter somewhat larger than the bougie. It is now eleven weeks since the plan was first suggested and acted upon, and as she can herself pass the bougie with ease, which has been done every night after retiring to rest; I gave general directions with regard to her future conduct, both as to the use of the bougie and regimen, and took my leave.

Observations.

This case may be deemed of considerable importance, inasmuch as it appears to have been simple stricture, with some contraction, and thickening of the inner membrane of the rectum, going on to a very alarming conclusion. It likewise proves how much may be done by gentle means, when the contraction has assumed a decidedly unfavourable state. I not only investigated the symptoms of the complaint very minutely, but attentively watched the evacuations at different times, and endeavoured to ascertain the morbid change which the rectum had undergone prior to the adoption of any plan.

Had I not been thus particular, the patient might have done otherwise than well, and the cause referred to the effects of obstinate costiveness. I have no doubt, but, in many instances, such a termination of similar cases does occur, and the death of the patient is referred to the above cause. I was aware in this case, that something more than mere constipation existed, which caused so much constitutional derangement, and considered that the pain about the sacrum and hypogastric region, was not the general effect even of obstinate costiveness. Added to these, the sense of bearing down, and feel as though the whole of the feces had not been expelled, was another reason for minute investigation.

As I could distinctly feel with my finger the principal point of contraction, and a sort of pouch around the aperture, serving as a reservoir above for accumulated feces, I considered the introduction of a bougie indispensable, in order to be correctly informed of the state of the colon above the stricture. Persuaded of the real state of the intestine, (and having seen several preparations and dissections of scirrho-contracted rectum, whilst a pupil of Dr Baillie), which confirmed my opinion respecting the nature of the lodgment for the feces in this case, and induced me not to withdraw my finger until I had passed a bougie beyond it, through the aperture into the colon.

I conceive that contraction of the rectum, and simple stricture, may be mechanically induced, by long continued obstinate costiveness. The feces accumulate, and remain for a length of time in that part of the colon, which terminates in the rectum, and there forming (by their weight and constant pressure) a lodgment for themselves in a pouch or bag of the inner membrane (similar to an hernial sac) of the intestines; as a consequence of unnatural stimuli, constantly irritating the highly vascular and sensible membrane lining the colon, pain is induced about the sacrum and hypogastrium, occasioning a spasmodic constriction of the gut below, which increases, and becomes permanent, in proportion to the accumulation above. The sense of weight, and pressure of the feces, becomes distressing; and, after frequent exertion, a small hard motion is expressed with considerable difficulty. How far this view of the cause of stricture of the rectum may be deemed conclusive, I am not prepared to say; but it must be acknowledged, from the circumstance of the complaint occurring without the intervention of disease, and happening more frequently to females than men, and from the known disposition of women to constipated bowels, that it is not improbable.

I likewise conceive, that scirrho-contracted rectum originally commences with simple stricture, and contraction of the gut induced by obstinate costiveness, which continues increasing until the functions and structure of the part become diseased. A thickening and ulceration of the inner membrane follow, with a train of bad symptoms, which soon cuts short the patient's suffering by terminating in death.

Contraction of the rectum is very insidious, both at its commencement and in its progress, and, unless the surgeon takes particular pains to investigate very minutely every symptom connected with obstinate costiveness, and the examination at different times of the evacuations, he may easily be deceived, until the disease assumes a more alarming, dangerous, and incurable form.

With regard to the means of relief and cure, particularly in simple contraction of the rectum, they are sufficiently obvious.

When the complaint is ascertained, a small bougie must be introduced with caution, until it passes the point of contraction, and allowed to remain, as long as no pain or inconvenience is experienced.

The state of the bowels must be regarded, and care taken that they are kept lax by a gentle aperient, such as castor oil or manna; at the same time, withdrawing from the patient all kinds of stimulants, both as respects diet and drink. In about a week, the size of the bougie may be increased, and so continued until the largest sized bougie can be passed without pain. The time of the bougies remaining must be governed by circumstances; if they are introduced at night, in general they will remain, without any inconvenience, for six or eight hours. The kind of bougie forms a consideration of very considerable importance, both to patient and surgeon. If I may be allowed to decide from experience, and which corresponds with the opinion of the most eminent practitioners, both ancient and modern, I should give the preference to a soft bougie, particularly at the commencement of the complaint. They will be found not only easier of introduction, but they adapt themselves to the form of the rectum and colon. They give little or no pain to the patient, and they are less liable to produce irritation.* After Mr White's bougie has been used some weeks, and the gut can be sufficiently dilated for every purpose, and yet shows a disposition to contract, I have used with effect the elastic gum bougie. I conceive, that this last has the power of inducing the muscular fibres of the intestine to retract, condenses them, and also induces them to return to their more natural state. After the bougies have been used for some weeks, and the passage for the feces appears to be sufficiently open, once or twice a-week will answer every purpose, and prevent a return of the complaint, particularly if the bowels are kept lax.

Bath, July 1817.

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* I know of none which answers all the above purposes so well as those prepared by Mr White, surgeon, of this city, (to whom the public and the profession are particularly indebted for the able manner in which he has investigated the complaint which forms the subject of this paper.) They are adapted for every degree of contraction, and, like the long tent used by Desault, they sufficiently and safely dilate the intestine, and take the conformation of the gut without injury.

VI.

Case of Recovery after the Separation and Discharge by Stool of a Portion of the Ileum. By ALEXANDER RENTON, Surgeon, Penicuik.

I HAVE been induced, from the singular nature of the following case, to request its insertion in your Journal. I am not aware that the annals of Surgery contain the like history of a similar affection. Cases indeed are recorded, wherein portions of the intestinal canal have spontaneously sphacelated, and been discharged by stool, and the process of digestion has still continued to go on; yet, so far as I know, the salutary efforts of nature in such cases have not been found to be permanent and complete; the patients sooner or later have sunk; and their existence seemed rather to prove, that it was possible that nature might survive for a time, than that she could eventually recover from, the partial destruction of so important a viscus. From a knowledge, therefore, of the unfortunate termination of these affections, I have been prevented communicating to you the history of this one, until I saw its ultimate result, by which I might be enabled to speak with more certainty of all the circumstances connected with it.

G. B. who is a mason by trade, went to his work at six o'clock on Saturday morning, July 6, 1816, in good health; and was suddenly seized in about an hour and a half afterwards with pyrosis, and pain in the left hypochondrium, with a violent drawing in of his bowels, followed by a sensation, as if some portion of them was squeezed and constricted. Thinking to alleviate the severity of the pain, he ran immediately to stool, and procured a motion, without the relief he anticipated from it. He was carried to a neighbouring village, and, on his swallowing a glassful of spirits, vomiting, for the first time, commenced. There he was bathed in warm water, the pain continuing unabated. Through the course of the day castor oil, at different times, was given him, which his stomach uniformly rejected. By his own desire he was taken home in a cart, a distance of nearly four miles. I saw him about ten o'clock in the evening. He was apparently in great distress; his body was bent upon his thighs; there was tension, increased heat, and pain of the abdomen, especially below the umbilicus, aggravated by pressure, and constant, though not always equally violent. He was restless in every posture; a profuse perspiration covered the surface of his body; his pulse was quick and strong, and he was frequently straining for a motion, but without effect.

I took twenty-four ounces of blood from his arm, and directed that he should be put immediately into a warm-bath, and that stimulating enemas be repeated every hour, with an ounce of castor oil, until some effect from his bowels be procured. I saw him next morning by eight o'clock, and found him much in the same state; his belly on the whole being more generally tense, though the pain occupied a particular part of it, to which a bladder of hot water had constantly been kept applied. I bled him again to the same extent, and learnt that the castor oil he took through the night had been rejected, and that the injections had come away without effect. He was again put into the warm-bath, and experienced in it the same temporary relief he received before. His stomach becoming more irritable, I ordered, in place of the castor oil, small doses of scammony, alternated with aloes and the injections, every two hours. At bed-time the warm-bath was repeated, which he urgently cried for, and a large blister was applied to the abdomen. The medicines he took remained for a considerable time upon the stomach, probably by the stomach and duodenum being emptied of their contents by vomiting, and the feculent discharge not having yet commenced. On Monday morning he was again put into the warm-bath, out of which he was taken in about ten minutes, in a state of syncope. During the latter part of the night, he began to reject large quantities of crude and indigested matter, which appeared from its smell and consistence to be the contents of the small intestines. When I asked him about the affected part of the belly, he laid his hand upon a spot from which he said all his distress proceeded. He has taken eighteen grains of scammony, and twelve common aloetic pills, some of which were found entire in what he had vomited. Instead of these purgatives, I recommended him to try the effects of Epsom salts, with the compound powder of jalap, in separate doses, and to assist their operation by a stimulating glyster in the evening. I saw him again at four in the afternoon, and was informed that all the medicines were vomited, and that the pain had not intermitted in violence. His strength was now much exhausted, and a cold clammy sweat pervaded his body. With much difficulty he could turn himself in bed. He had frequent singultus; and when he was attacked with a violent spasm, his voice seemed to forsake him. In this very hopeless condition of our patient, I recommended to him a more powerful cathartic, and he was very willing to grasp at any proposal that afforded the slightest promise of relief. Accordingly, six grains of the mild muriate of mercury, with an ounce of the ol. ricini, were ordered to be taken every two hours, until I heard of their effects. By seven, on Tuesday morning, he had taken seven doses of each of the medicines, and none of them had been rejected, when nearly eight pints of dark-coloured bloody excrementitious matter were discharged by stool. He now felt much relieved, the ease that followed the evacuation being almost as sudden as the pain in the commencement of the attack had been. The tension and pain of the abdomen subsided, and through the course of the day he had several copious stools, which were very fetid, and but slightly stained with blood. During the thirteen subsequent days, he continued free from any urgent symptom, excepting the occasional occurrence of spasms in the part originally affected, which seemed to proceed from costiveness, as they were alleviated by the exhibition of a glyster and castor oil. He had occasion to have recourse to the warm-bath twice only in that period, in order to mitigate a sudden attack of pain in the abdomen.

On the morning of the fourteenth day after the discharge, he became restless, and all the former symptoms relapsed in their most aggravated form. In this state he continued for three hours, racked with violent bearing down pain, by endeavouring, in straining, to expel something from his bowels, that required all his efforts.

From this distressed state he was as speedily freed by the discharge of a portion of the ileum nearly eighteen inches in length. Worn out with pain, he fell immediately into a profound sleep for three hours. Since that time he has recovered gradually from the effects of his complaints, and has been for several months past at his usual employment. He is about forty-five years old, of a lank and relaxed habit, and strongly marked with all the symptoms of the leucophlegmatic temperament. Upon inquiring into some of the circumstances of his complaint, I was told by him, that he had been raising, on the morning of the attack, several heavy weights, and that he attributed the cause of it to the exertion he used.

The nature of the case, from the preceding detail, appears to be sufficiently obvious, and can in no other way be accounted for, than by supposing, that one portion of intestine had descended within another, had there become strangulated, and that the contiguous sides of the intestine, in the upper part, where the stricture existed, had united by the adhesive inflammation, while the included portion of it had been separated by the process, by which dead parts are removed from living surfaces.

A considerable part of mesentery was attached to the portion of ileum which was expelled; the division of the vessels of which may account for the flow of blood, that appeared only to an alarming extent in the first evacuation, and which seemed indeed to consist principally of that fluid.

It is likewise evident, that the introsuscepted intestine must have been, at least, partially separated thirteen days before it was finally expelled, as he had, during that interval, a free discharge of excrement, without much difficulty or pain. Whether or not it may have remained in the large intestine, for any length of time after it was separated, becomes a question that does not seem to admit of ready explanation.

Among many symptoms that more particularly harassed him after he was free from the immediate danger of the attack, was a frequent craving or hunger, which was not gratified wholly by the taking of food. He was nourished for a long time upon the simplest and mildest diet; and it required no inconsiderable share of attention on his own part, to select those articles of food which he found by experience to agree best with him.

Upon taking animal food, or any other form of diet which disagreed with him, he could tell, with a good deal of precision, the time when he should be attacked with pain in consequence of it. This generally happened in about three hours afterwards.

Costiveness was likewise an effect of the complaint, which, unless obviated by the almost daily use of laxatives, never failed to reproduce an attack of pain, during the progress of his tedious recovery in the primary seat of the disease.

The only other fact worthy of record is, that, during his convalescence, his bowels remained for a long time in a very irritable state, so that wine and other cordials, recommended for his weakness, were obliged to be relinquished on account of their stimulating effects upon the intestines, and that, even yet, malt and diluted spirituous liquors are attended with similar consequences.

I have only to mention further, in concluding the history of this case, that the introsuscepted portion of ileum was given to Dr Thomson, Professor of Surgery in Edinburgh, and, I believe, is now to be seen in the Museum of the Royal College of Surgeons of that place.

Penicuik, August 6th 1817.

VII.

Case of Tetanus. By Emanuel Lazzaretto, M. D. F. R. S. and Member of the Royal College of Surgeons, London.

John Brown, aged 25, seaman, complained, on the 10th April, of pain in his right thigh, saying, that he had been intoxicated the night before, and he had thrown down on the deck John Baptist, a black man, (who was afflicted with syphilis). When in the act of scuffling with him, he received a bite on the thigh, which he did not feel until the time he complained of.

On examining, I found the thigh very much inflamed and swelled,—a small wound where the teeth had left their impression. A cataplasm, with some liq. plumb. acetat., was applied three times a day.

℞ Sol. mag. sulph. ℥ijss.

11th.—The medicine had no effect; complained of stiffness and pain in the limbs, back, and belly, with frequent severe catchings; under jaw strongly drawn up towards the upper; difficulty in swallowing. I found all the muscles round the neck hard and tense, so that he was quite unable to move his head; pulse 100. For a minute wound it had a black appearance. Continue the cataplasm as before.

℞ Hyd. subm. gr. vj.
Pulv. jalap. gr. xv. tertiâ qq. horâ repetend. donec plene responderit alvus.

12th.—Had been repeated three times without effect; great deal worse in every respect; pulse 120. He was ordered to take freely of barley water acidulated, and the saline mixture in the state of effervescence. A laxative enema was immediately injected, and a draught with tinct. opii gr. xxxv. liq. ant. gr. xxx. spir. lav. comp. gr. xxv. aq. font. ℥ij. M. capt. h. s. Wound was dressed as before. Liniment of oliv. olei, and sal. vol. c. cerv. to be made use of all round the muscles of the neck and face.

13th.—Had a stool of dark-green colour, very fetid; restless; profuse perspiration during the night; some delirium towards the morning; spasms very severe; pulse 120; the abdominal muscles affected; the sore looked black, and sloughy discharge offensive, and in considerable quantity; the swelling and lividity of the surrounding parts had, in a great measure, disappeared.

℞ Hyd. submur. gr. x.
Pulv. jalap. gr. xv. M. f. pulvis quartâ qq. horâ repetendus.
Mist. salina ut antea.

Potassa cum calce was applied to the wound, and he was ordered the cold affusion of salt water.

14th.—Slept little last night; had two thin stools, very green; cold affusion produced some relief; spasms less severe; no delirium; pulse 110; sore looking better; discharge not so offensive; dressed ut antea. Repeat the hyd. subm. c. jalap. and mist. salina as before; cold affusion to be repeated three times in the day.

15th.—Had three yellow stools during the night; spasms more moderate; countenance improving; pulse 98; wound looking better. Repeated medicine ut antea.

16th.—Had five yellow stools of a more usual smell; spasms abated; considerable salivation; frequent subsultus tendinum; while asleep opened his mouth; profuse perspiration during the night. Discontinue the hyd. subm. and substitute pilul. c. colocynth. comp. gr. x. quartâ qq. horâ, with the mist. salina. Wound has a healthy appearance; dressed with unguentum cetacei; cold affusion ut antea.

19th.—Better in every respect; had three stools nearly natural; spasms milder than ever; slept better during the night; abdominal muscles rather contracted; motion of jaw much improved; flatulence; thirst abated; perspiration less; wound healing; dressed ut antea.

19th.—The febrile symptoms have left him, but he appeared dejected, and complained of anxiety about the precordia.

℞ Inf. cascarillæ, ℥vss.
Spir. ammon. comp. ʒij.
Tinct. columbæ ʒj. M. f. mist. capt. cochl. iij ampl. ter quaterve in die, was given, with a more generous diet, and a moderate allowance of port-wine, until his wound was cicatrized, and health quite restored, when he was discharged to duty 28th April.

Queen Charlotte, the 13th June 1817.
Portsmouth Harbour.

VIII.

Case of obstinate Colica Stercorea, cured by the exhibition of Quicksilver. By JOHN O'NEILL, Surgeon, Fermoy.

I WAS consulted by Mr Barry on the following case, the treatment of which was conducted by him for the four first days. Mr Barry, at my request, favoured me with the account of it which I now present.

December 7th, 1815.—THOMAS FOLOW, farmer, æt. 68; full habit; sanguine temperament; complains of umbilical and dorsal pains; stomach painful on pressure, and irritable; pulse 78, and full; tongue foul; respiration hurried; bowels costive; belly somewhat tense, and tumid; appetite impaired; thirst considerable. These symptoms have been present two days, during which period he has had no alvine evacuation; has used no remedies; enjoyed previous good health, an inclination to costiveness excepted, which has been removed by the occasional use of aloetic purgatives; cannot assign a specious cause for the present attack.

℞ Pulveris rhei palmati ℈ii.
——— Jalapii ℈i.
Submuriatis hydrargyri, gr. x.
Zingiberis, gr. xv. M. et divide in chartulas tres æquales; sumat unam ex quodam vehiculo crasso, tertia qq. hora; et nisi prius responderit alvus, sorbeat vespere ℥iss. infusionis sequentis, et repetatur secunda qq. hora ad alvi solutionem.

℞ Infusionis sennæ ℥viii.
Salis rupellensis ℥iii.
Mannæ optimæ ℥ii. m.

8th.—Leading symptoms as before. He was put into a warm-bath, and flannels wrung out of warm water have been frequently applied to his abdomen, but no seeming advantage has resulted.

Injiciatur quamprimum enema domesticum, et repetatur infusio sennæ ut antea. Continuetur balneum.

9th.—Has used every thing as prescribed, and has taken fourteen ounces of the infusion of sennæ, without obtaining any benefit

Utatur bis indies balneo tepido; intermittatur infusio sennæ, et repetatur enema ter indies.

℞ Aloës socot. ℈ii.
Calomelanos, Scammoniæ, āā ℈iss.
Colocynth. ʒss. M. et divide in chart. octo æquales.
Sumat unam secunda qq. hora ad effectum.

10th.—Every thing as prescribed has been nearly taken; no stool; pains of abdomen as last described.

Intermittantur omnia ut heri præscripta; et habeat Olei ricini ℥i. et rept. secunda qq. hora, vespere injiciantur per anum ope fistulæ armatæ, decocti sequentis unciæ duodecim.

℞ Nicotianæ ʒi.
Aquæ fontanæ lb. i. coque ad ℥xii.

11th.—Has taken six ounces of castor oil, and the injection has been given to no purpose; symptoms much aggravated; pulse 80, and small; respiration anxious. His belly was rubbed with a mixture composed of two parts of oil of olives, and one of spirits of hartshorn, and then swaded. The finger was introduced into the rectum, for the purpose of removing the hardened feces, but they could not be come at.

Rept. omnia ut heri.

12th.—The injection was administered, but he declined taking any more purgatives; symptoms much aggravated; abdomen much inflated, and painful to the touch, particularly about the scrobiculus cordis, and midway between the navel and the anterior spinous process of the ilium on the right side; pulse 76, and intermitting; respiration laborious; constipation obstinate; urine secreted in small quantity, and passed with difficulty; great prostration of strength; countenance dejected, and expressive of great pain. Despairing of having recourse any longer to the purgatives, we mutually agreed to dash cold water on the extremities and abdomen, but were baffled in this, as well as in all other remedies. Anxious for the well-being of our patient, we ultimately determined on giving quicksilver by the mouth, which answered our most sanguine expectations, and finally removed the complaint.

Habeat argenti vivi ℥vi. Omitt. alia.

13th.—About three o'clock last night he discharged a few scybala, tinged with blood, and in an hour after, about a quart of slimy matter, to which succeeded, in the course of nine hours, fourteen copious fetid and dark-coloured stools; at present is much easier; all the dangerous symptoms are nearly gone.

14th.—Has had two alvine evacuations since last night, and is much better.

Habeat olei ricini ℥i. et. aq. menth. pip. ℥iii.

15th.—Convalescent. The symptoms in this man's case are so striking and pathognomonic, that there can be no doubt but he laboured under an attack of *colica stercorea*, and that his recovery is to be attributed to the active treatment which was employed. Indeed, when we consider the importance of the organ that was the seat of the complaint, it will be obvious, that none but the most prompt and vigorous means can be adopted with any prospect of success. That the purgatives, enemas, and warm-baths, contributed somewhat to the cure, I have no doubt; at the same time, it will be manifest, on a perusal of the case, that it is to the use of the quicksilver the patient chiefly owed his safety. This case points out to us, that when obstinate costiveness prevails, and purgatives fail in producing their wonted effect, we are not to be deterred from the employment of quicksilver.

Fermoy, 28*th December* 1816.

IX.

An Historical Sketch of Medicine in the Russian Empire, from the Earliest Period to the Present Time. Communicated by Dr von Embden of Hamburgh.

THE first medical man mentioned in Russian history was called Smer; he was physician to the Grand Duke Wladimir, had seen foreign countries, and lived in the tenth century. Before that time they very likely had no physicians. Distinguishing themselves by firm health, strength, hardiness, and simple regimen, they were subject to but few disorders, which, being simple in their nature, they cured with domestic remedies. The bathing-houses also were in use among them, and organized in the same manner as at the present time. As in the eleventh century Christianity was introduced into Russia, and in consequence of it convents were instituted, the monks began to practise physic for charity's sake. Sick wards were constructed in the convents, and Jeffrem, Bishop of Peregaslaw, erected in 1091 the first hospitals in which patients were gratuitously received. From the twelfth to the fourteenth century, we find indeed mention made of physicians, but no one of them is named except Peter the Syrian. Under the authority of the Tartars in the thirteenth and fourteenth centuries, the cultivation of sciences was at a stand, besides which, famine and the plague depopulated the country. In 1351, the black death, as it is called, coming into Russia, killed a vast number of people, and police regulations were entirely wanting at that time.

In the fifteenth century, after the expulsion of the Tartars, the cultivation of science was revived, but the treatment of the sick still rested with the clergy, there being as yet hardly any physicians. Iwan Wasiliewitsch, indeed, had one; and in 1483, sent emissaries to Rome to invite physicians to come to Russia. In this century, and particularly in 1499, syphilis made its way through Poland into Russia, besides which the plague, at intervals, still raged, and the leprosy still occurred. In the beginning of the sixteenth century, two very worthy foreign physicians, Nicolai Lugeo and Theophill, lived at the court of the Grand Duke Wasilei Iwanowitsch. After this, Czar Iwan Wasiliewitsch II. brought more physicians into Russia. It was in his reign that the Russian clergy stipulated in the consistory, held 1545, that it became the Czar, the metropolite, and the upper clergy, to tax the convents for the benefit of the aged and sick, and, in 1360, hospitals were erected in many cities, and it is very probable that it was about the same time that the first apothecary's shop was set up in Moscow. In 1552 we find the first mention made of scurvy in that country.

In the reign of Fedor Iwanowitsch, in 1588, the first medical book was published. The original being written in Latin, a translation of it in Polish was published ,for Waiwaden of Frotyk at Krakow in 1423, and from that language into the Russian in 1588. It consists of 1561 pages, containing also drawings of plants, animals, and stones. In 1592, under the same reign, the erection of preventive buildings against contagious disorders was begun, by placing small quarantine guards on several frontiers. A forensic examination of the body of a neighbouring prince, under Russian protection, who had been poisoned, also happened about this time.

In the reign of Czar Boris Feodrowitsch in 1600, some more German physicians were called into Russia. Michael Feodrowitsch Romanow still more contributed to the promotion of physic in Russia. He enlarged the preventive measures against the plague, and ordained, in 1615, the first military physicians, and in 1620, the first medical, or rather apothecaries' board, (aptikarskoi priskas,) which was to ordain physicians and apothecary shops, and provide them with medicines. The board consisted of the archiater and the other physicians of the court, was under the direction of the empire, and had a chancery and many officers. Ten thousand rubles were annually spent for the maintenance of the board and the apothecaries' shops. Native medicines were now also ordered to be gathered in different provinces of the empire, and to be delivered as a peculiar tax. Some native Russians went into foreign countries to study physic, and foreign physicians came to Russia. A selection thus becoming possible, those that did not give satisfaction were sent back, the others for the most part receiving situations at court, with adequate salaries. From 1645 to 1676, under the reign of Alexei Michailowitsch, military apothecary shops were instituted, military surgeons and under surgeons ordained, who were obliged to get into the routine. A distinction was made between physicians and surgeons, the first being called doctor, or dochtur, of which there were upper and under dochturs, the same as upper and under surgeons. Strong measures were taken against the plague, and strict quarantine enforced. Physicians were sent abroad on purpose to buy exotic remedies in Holland and England, and greater care was employed in collecting the native drugs, and botanical gardens were established. The woiwodes were charged with the reception of the herbs, and their delivery to the board of apothecaries. Notwithstanding all these establishments, there was, nevertheless, no settled foundation for physic in Russia, and physicians and surgeons were still obliged to acquire their technical routine, by serving as assistants to foreign practitioners, and no foundation was laid for the elevation of physic till in the reign of Peter the Great. He erected a medical board, which, in 1707, received the name of Apothecaries' Chancery, was removed to St Petersburgh, and received, in 1714, a sum of fifty thousand rubles, in order to buy foreign medicines, and to remunerate its medical officers.

In 1721, all hospitals and apothecary shops, as well those belonging to the crown as the private ones, were placed under its superintendence, and all unprivileged medical practitioners were interdicted the practice. In 1725 this board received the name of Medical Chancery, and was only called Medical Board for the time when the court and archiates were at Moscow passing ukases.

The establishment of the chief military hospitals in 1706 gave the first opportunity for institutions for medical instruction. These hospitals were to be provided with the ablest physicians. Each of them received a few under-physicians, assistants, and pupils; besides which, they were obliged to take many young Russians as apprentices, and instruct them in anatomy, pharmacology, and surgical operations; besides which, they were instructed in Latin and drawing. These pupils were afterwards, according to their abilities, made under-physicians or physicians

(Leckar). There were three medical schools of that description at the various hospitals of St Petersburgh, Moscow, and Kronstadt. In 1715, the Great Admiralty Hospital was built on the borders of the Neva, at St Petersburgh, with a church in the centre, and an anatomical theatre in each wing.

According to the military code, made by the Czar himself, each division received, in 1716, a doctor and a surgeon to the staff, each regiment a physician (Leckar), and each company an under-surgeon (Ziralaick); the whole army two field-apothecaries, one for the cavalry, and one for the infantry; each of them provided with two assistants and four apprentices.

Peter further ordained the establishment of foundling-hospitals in Moscow and other cities. A similar institution had already previously been established at Great Nowogarod, through the exertions of Bishop Zow.

A cabinet of anatomy and natural history, and a medical library, were now brought from Moscow to St Petersburgh. The natural curiosities had been partly collected in Russia, and partly by Peter on his travels in Holland, in 1698. The museum was afterwards increased by the addition of that fine collection of the apothecary Seba, at Amsterdam, which was purchased for fifteen thousand florins; and, in 1717, by the famous Ruysch's museum, which was bought for thirty thousand florins. Ruysch confided his secret of injecting and embalming to the Emperor, who communicated it to the archiate Blumentrast, who, in his turn, entrusted it to the inspector of the anatomical preparations, Schumacher. This again imparted the secret to the Archiater Rieger, who afterwards, on his leaving the Russian dominions, made it publicly known. In order to increase the museum, it was enacted, that from the whole empire, all the monstrosities should be sent to St Petersburgh, for which rewards were offered by government. Travels were undertaken for the improvement of Russian natural history. In 1719, Dr Messerschmidt was sent to Siberia for that purpose, where he staid eight years. He learned the Tangutanian and Mogolian languages, from the Tangutanian Lamas, and gave convincing proofs of his activity in his ornithology and ichthyology. Dr Buxbaum, who, in 1719, had entered the service, went, in 1724, with the Russian embassy to Constantinople, and returned from thence through Natolia and Persia, over Astrachan, and published his botanical observations. The Russian mineral waters now also began to be investigated; and now the native Russians began also to treat physic as a science.

As in 1726, under Catherine I., the Imperial Academy of Sciences was established, many physicians of note were called into

Russia, among whom were Duvernoy, Burges, Weilbrecht, Kaau Boerhaave, Wolf and Protassoff; the latter was a native of Russia, and pupil of Boerhaave. Under the reign of Anne, from 1730 to 1740, many acts relating to physic were passed. In 1733, the sale of poison in the grocer shops was prohibited. In 1735, the duties of the physicians of hospitals were stipulated. In 1736, the construction of the field apothecary shops was improved, and four of them in Dubnow, Smolensk, Riga, and Wyburg, appointed to follow the army in time of war. In 1737, physicians were appointed in different cities with a fixed pay; and, in 1738, one for the poor at St Petersburgh, whose duty it was to attend daily at the principal apothecary shop, in order to prescribe for the sick that came thither. Besides, this science received at that period considerable improvements through Heinzelman, Siegesbeck, J. G. Gmelin, Steller, and others, and Hahnhardt and Von Wellen published, in 1744, the first anatomy for the use of the pupils of the military hospital at St Petersburgh. In 1754, in the reign of the Empress Elizabeth, the University at Moscow was established, and increased attention was paid to midwifery. In 1755, one physician and two surgeons were appointed for curing small-pox, measles, and other contagious cutaneous disorders in St Petersburgh, and, in the same year, the first publication on inoculation made its appearance, though it was not practised till the year following.

In 1756, a library was joined to the Medical Chancery, and, in 1758, Bestucheff's drops drew upon them the public attention. The archiater Paul Zachariewitsch Cordoidi caused the best medical books to be translated into the Russian language, by Martin Schein, head surgeon to the Admiralty Hospital; in 1757, Heister's anatomy; and, in 1762, Plattner's surgery. He also caused young Russians to be sent abroad to study physic, which, however, was not effected till after his death in 1762. In 1763, Catherine II. established the Imperial College, which she divided into two departments, one directing the learning, and the other, under the appellation of the Chancery, the economical part. It consisted of six assessors, who worked under one president, and the college at Moscow also had one president and two members, constituting what was called the board. This college contributed much to the improvement of medical schools; the hospitals were also better organized; new apothecary shops were established; the number of botanical gardens increased, the Siberian rhubarb plantations extended; acts passed respecting the keeping up of the military apothecary shops in time of peace, and respecting the collecting of native remedies, &c.

In 1763, a scientific medical society was established at St Petersburgh, which assembled once a week for the sake of artificial (oral ?) communications, and to receive written communications from members from abroad ; but this lasted only five years. In 1765, a free economical society was erected at that place, was confirmed by the Empress in the following year, and is still in existence. Many able physicians contributed, by their works, and treatises on contagious disorders, dietetics, popular medicine, and the plague among animals, to the accomplishment of their aim. In this year, the Medical College published their first Dispensatory. Inoculation, likewise, which had begun already in 1756, now became general throughout all Russia, the Empress and the Crown Prince having given the example in 1768. Houses were erected for that particular purpose at St Petersburgh, Kozen, and Irkutzk.

As the empire had now been divided into governments, physicians and surgeons were appointed in each different government, and hospitals erected in the chief of them. The want of medical men being increased by these measures, they wrote for a number from Germany.

In 1768, Catherine desired the naturalists to cultivate the natural history of Russia, and supported them most generously in it, by which Pallas, Falk, Gmelin, Lacman, and others, were induced to devote particular study to that science.

In 1769, the lady of Prince Dimitrei Michailowitsch Galizin, daughter of Prince Kantemir, fixed a legacy, by which three native Russians were to be sent to, and supported at Strasburgh, in studying physic.

In 1770, as the plague raged in many parts of Russia, as well as in Moscow, Saafonsky, and Stamoilowitsch, Oreans and Meltzer published their observations on the nature and treatment of that distemper.

In 1778, the Medical College published their second Dispensatory, Pharmacopoeia Russica, and, in the next year, the Military Dispensatory.

In 1783, the Medico-Chirurgical Institution was established at St Petersburgh. This was independent of the Medical College ; stood in scientific respect only under a director, Surgeon Kelcher, and in economical respect under the chief master of the police of St Petersburgh, but received afterwards a separate chief director. Thirty pupils were there instructed at the expence of the Crown, and almost as many studied on their own expence. The institution was meant originally for natives only, but most of the teachers being Germans, and the greatest part of the pupils natives either of the German Russian dominions, or proper Germans, the lectures were in the beginning delivered in the German language. The institution had two clinical schools, and one for midwifery. This medical establishment being confirmed in 1786, the surgical schools at the military hospitals also received a better organization. The instruction was extended, and the number of pupils maintained by government fixed at 150, and any one studying at his private expence, had a free admission to the lectures, besides that they were to be boarded and clothed for 80 rubles a year. In this new establishment, the objects of medical instruction were fixed upon for the future, and a sum of 248,760 rubles were stipulated for the support of the whole. At that period, thirteen military and seven navy hospitals were under the direction of the college.

In 1788, a society formed at St Petersburgh, under the superintendence of a Lutheran divine, Provost Larupe, who, from notions of philanthropy, undertook the treatment of the poor in their private habitations; it existed 12 years.

The Medical College, which hitherto had only had a president, now received an upper director in the person of Mr De Wittinghofen, under whose direction a medical rate and order was published for the apothecaries and midwives, in the Russian and German languages. It was about the same time that the upper apothecary, Lowitz, made the discovery of preserving water from putrefaction, and freshening it when corrupted, by charcoal.

In 1791, the first institution for the recovery of drowned people was established. In 1793, a society of physicians at St Petersburgh began to publish a medical newspaper in the Russian language; and, in the same year, the University of Moscow received by an ukase the privilege of conferring the doctoral degree, which had hitherto belonged only to the Medical College.

Under the direction of Count Alexei Iwanowitsch Wasiliei, who, in 1793, came to the upper directorship of the college, professorships of midwifery, mathematics, and natural philosophy, were instituted, the number of professors increased, adjuncts added to them. In 1796 clinical institutions were opened in the military hospitals, the medical examinations were made stricter, and the students divided in classes, for the purpose of rendering their studies methodical. The college library was considerably increased; the anatomical, surgical, and chemical cabinets of the medical schools enlarged, and natural, philosophical, and mineralogical ones established. The physicians of governments and districts, who hitherto had stood under the governors, were placed under the immediate direction of the college. The manufacture of surgical instruments was so improved, that it did not yield to the best foreign one; and a printing-office was established, in which a vast number of medical books, both originals and translations, appeared. At this same period, descriptions of the mineral waters near Baldahn, in Courland, and near Constantinegorsk, near the Kaukasus, made their appearance.

Soon after Paul I. began to reign, the physical board underwent considerable improvements, and stricter attention was paid to the public health, the hospitals and apothecaries' shops in the provinces, by establishing a medical board in every government city, in the year 1797. Each of them had a director, an operator, and an accoucheur, and the members were bound to publish physical and medical topographical descriptions of their governments.

In St Petersburgh an institution for midwives was also established, in which 22 female scholars were under one physician-accoucheur or professsor of midwifery, one surgeon, and one midwife of greater experience. Midwives were also appointed in the government and district cities, the eldest of whom received 120, and the younger ones 80 rubles annually. In the same year, it was ordered that 30 scholars be sent annually from the theological seminaries to the schools of physic, and a separate school was erected on the Apothecaries' Isle at St Petersburgh, for the preparing of young men to the study of physic. The medical schools now receiving pupils that were scientifically prepared, and the professorships being supplied with native Russians, two medico-chirurgical academies were established at St Petersburgh and Moscow, in 1799; but the latter was, like that of the medical school at Kronstadt, united with the former. Medical jurisprudence now was added to the sciences that were taught before, and the number of students in both academies amounted to 240. They were divided into disciples and students, and, in order to prolong their time of study, their places in the military hospitals were supplied with petty surgeons.

In 1800 the academy was entirely separated from the military hospitals, with which it had hitherto been in close connection, and was removed to a building erected on purpose for it.

In 1801 the first successful attempt was made with vaccination, in the foundling-hospital at Moscow; and in the same year the college published a treatise on the utility of it. Dr Boutaz was commissioned to introduce vaccination in the provinces, the medical boards being desired to contribute to the general distribution of so useful an invention; and it is really surprising how readily even the lowest class met this arrangement.

In 1802, with the establishment of the new ministry under Alexander I. the medical college was placed under the ministry of the interior, and the medico-chirurgical institute was combined with the medico-chirurgical academy. A medico-philanthropic committee was also established at St Petersburgh, which had, 1st, the attendance of sick paupers at their private abodes; 2d, the gratuitous dispensation of medicines; 3d, assistance in casualties that happened in the street; 4th, the erection of separate hospitals for contagious patients; 5th, the keeping of the maimed, and educating the deaf and dumb, &c. for its aim. This committee afterwards also paid attention to the numerous diseases of the eyes, for which a separate infirmary was established, first with 10, and afterwards with 100 beds; a separate accoucheur was also paid for attending on the poor. The number of members belonging to this society, in and out of the metropolis, is uncertain. Besides 1500 rubles, which were given in the beginning to the establishment, the government treasury contributed annually 5400 rubles, and the imperial treasury 24,000 rubles, besides which considerable contributions flowed in to the fund from individuals.

In the same year an edict was passed, that popular medicine was to be taught in the theological seminaries, in order to enable the clergy to assist the sick in those places where there was no physician

In 1803 an imperial medical board was erected in the room of the medical college, and consisted of two divisions. The first is called the medical council, and its object is every thing connected with learning tending to the improvement of physic; the second is called the medical expedition, forming the third expedition of the ministry of the interior, and has for its object the special and economical affairs of the medical board. In the same year, the erecting of veterinary schools was proposed in St Petersburgh, Moscow, and Lubum.

In the same year, the universities of Wilna and Dorset, and, in 1804, those of Charhow and Kasan, were established. In the last year, the mineral waters at Lipetyk, in the Tambow government, were examined, and appropriated to the use of the sick; arrangements were also made against the yellow fever, which began shewing itself in some parts of Europe, and Guyton-Morveau's method of fumigation was made publicly known.

In 1805 the army medical board was placed under the ministerium of war, and physician and surgeon generals of the staff, and a proper number of chancery officers were appointed for the army and navy. The military divisions received medical inspectors and vice-inspectors. The duties of the army medica men were more exactly pointed out, and honorary and pecuniary rewards were fixed for them. According to the military medical *etat*, published in 1805, there were at that time 2597 physicians and under-physicians for the army and military hospitals, who received 488,605 rubles salary; and 1288 for the navy, sea-ports, and navy hospitals, who received 215,403 rubles.

All military apothecary shops, and those belonging to the head admiralty, were placed under the ministry of the war department; but those from which the apothecary shops of the army and navy were to be supplied with medicines, were placed under the direction of the medical expedition.

A physician-general of the staff was also appointed for the civil. The anatomical cabinet of the medico-chirurgical academy was increased; the form of the surgical instruments in most common use was revised and improved; books in all the branches of physic were published; and the number of pupils educated at the academy and former medico-chirurgical establishment, who received afterwards appointments, between the years 1799 and 1808, amounted to 807.

In 1808 Dr Rehman described the Turkish mineral waters near the Baikal. In this year an alteration was made in the medical expedition of the war department, a director and two counsellors being appointed, with a proportionate number of chancery officers, in place of the physicians and surgeons general of the staff.

The medico-chirurgical academy was divided into two divisions, that of St Petersburgh and that of Moscow. In each of them a veterinary school, and one for apothecaries, was established, and its professors received the same rights and pay with those of the universities. The number of those studying at the expence of government was extended to 720. To remove any impediments to the study of physic, it was, under certain condition, even permitted to receive such as were born in bondage. The members of the medical council were made perpetual honorary members of the academy. The medical dignities were divided in degrees, and the prerogatives of each fixed. The academy received the epithet Imperial, and its annual etat was fixed at 386,290 rubles. Physicians had before this already been sent abroad to study veterinary medicine. On their return, the building for the veterinary school being completed, it was opened in 1808, professors appointed for its various branches, and pupils received.

In 1809 a medical directory, or a register of all the physicians in the Russian empire, was published, according to which their number amounted to 2596, of whom 1187 were native Russians.

In 1810 the medical expedition was removed from the ministry of the interior, and placed under the minister of the police, whilst the medical council and the academy remained under the immediate direction of the minister for public instruction. A regulation also appeared respecting the principles according to which the incapacity for military service was to be judged of, as also another, respecting the examination of physicians, surgeons, midwives, and apothecaries.

X.

On the Benefit from Cold applied to the Head in the Fever called Typhus. By J. Wood, M.D.

When I consider how much good may be done by making known a single fact through the medium of a public Journal; a fact simple and decidedly efficient in its operation, and applicable to a disease frequent in this and other countries; which may be communicated in that manner to an indefinite extent, I am induced to attempt to effect that good, by the following communication:—If the disease is universal; if the fact is universally applicable; and if the Journal is circulated to all points in this kingdom, and through Europe and America, it is impossible to calculate the good that may be effected by the small labour of writing a few lines.

For above twenty years I have applied cold to the head in all cases of insanity from too high action of the brain, which is almost always attended with redness of the vessels of the eye, and a strong and quick pulse. I have also used it as successfully in that state of the brain called brain-fever, which I lately communicated to the Edinburgh Medical and Surgical Journal, during the same period; but it is only within a few years that I have used it in typhus fever, which has prevailed here, and in all parts of this country, I believe, for some months past. I have seldom applied it at an early period of the fever, but have rather waited for the necessity of it, and I have never been disappointed. It soon abates the most painful restlessness and pain in the head, and procures sleep; and this, too, at a time when no other power can do it; at a time when the physican feels almost at a loss for further means, when the patient is highly restless, and often uttering indications of pain, and when the friends are in a state of great anxiety and alarm.

When the cold is applied very effectually, the skin, so long hot, and obstinately dry, opens often with considerable perspiration. It is not only from my own experience that I advance what I say, but also from the experience of others, whose reports to me are uniform in every particular of its pleasant and decided effects. Its use is more felt if possible in cases of children, who are so difficult to manage in all respects when in fever, and who are generally averse to taking medicine.

I now proceed to the method of applying the cold to the head, which has always been done by large towels dipped in the coldest water, and immediately laid over the head entirely, part of the face, and back of the neck, one after another. As soon as one has been applied half a minute, it is removed, and another must be instantly applied, and thus continued in as quick succession for ten or fifteen minutes, until it is seen that the patient is easier, the heat less, and a disposition to sleep has taken place, which sometimes happens even during the operation. It is generally necessary to repeat the operation at first at short intervals; and it is very desirable to do it with so much quickness and perseverance as to produce *some degree of shivering*, the effects being more permanent too when this has taken place. The feet are sometimes cold when the rest of the body is hot, and this is often the case in typhus; and I therefore always used means to warm the feet when the cold water was applied to the head, and often had the *feet* in *warm* water, while the cold water was so applied. I had found *warm* water to the *feet*, and *cold* water to the *head*, useful in mania, and in epileptic fits, in which so little can be done; and, from analogy, I concluded the same might be useful in typhus, when there seemed great excitement of the brain, with heat, want of sleep, frequent restlessness, and sometimes delirium,—and I have not been disappointed. In a few instances of typhus, when recovery seemed hopeless in the evening, the patients have been declared the following morning out of danger, from the application of cold water to the head, and warm water to the feet, as above-mentioned.

Newcastle, August 20, 1817.

XI.

Case of Femoral Aneurism cured by tying the external Iliac Artery.

By Archibald Robertson, M. D.

James Massey, an American sailor, 38 years of age, of a robust make and ruddy complexion, was admitted into the Greenock hospital on the 12th July 1817, on account of aneurism of the right femoral artery, just below the groin.

About three weeks previous to his admission, when keeping watch on deck, and after working hard, he was suddenly seized with alarming pain in the right groin, extending down the inside of the thigh and leg to the foot, which continued about three days, and then gradually subsided. At this time he discovered a small hard tumour in the groin, which at first gave him little uneasiness, but, in the course of a few days, he observed pulsation in it; since which time the pain and size of the tumour have progressively increased. At the time of his admission it had attained the size of a large orange, flattened in its appearance, with a small prominence in front, without discoloration of skin, pulsating strongly, extremely painful, particularly on pressure, and attended with numbness and œdema of the leg and foot. His general health was good; his appetite natural; bowels regular; pulse 72; tongue clean, without thirst, and free from fever.

As there were no symptoms indicating immediate danger, it was thought advisable, before having recourse to an operation, to try the effects of compressing the artery as it passes out from under Poupart's ligament, with the strictest adherence to the antiphlogistic regimen.

He was accordingly twice bled, to the extent of twenty ounces; took occasional laxative medicines, and pressure was applied to the artery by means of the instrument, (of which there is a sketch subjoined), the screw of which was so placed as to command the artery, without affecting the circulation in the anastomosing branches. The pulsation and pain of the tumour were both instantly stopt on the application of the pressure. This instrument remained on the limb for 48 hours, (with only two or three intervals of a few minutes, when, in changing his position in bed, the pad happened to slip from its place), when the pain from the continued pressure became so excessive, that he was unable to bear it longer.

It was therefore determined in consultation, that, as there were no hopes of obliterating the artery by compression, and, as the tumour had increased very much on all sides, the operation of tying the artery above Poupart's ligament should be resorted to, as soon as the inflammation arising from the pressure should have subsided.

The following evening, when up at stool, he was seized with violent pain in the tumour, which suddenly became much enlarged. Fifty drops of tinct. opii were given him, and cloths wet in a solution of acetite of lead were applied to the part. The violence of the pain soon after subsided. The tumour had now attained a prodigious size, occupying the whole front of the thigh, and extending nearly as high as Poupart's ligament; the integuments appeared thinner, had a glazed appearance, and even slightly discoloured; the leg and foot were benumbed, and the œdema had increased. Yet his general health was unimpaired, and his pulse generally beat from 80 to 90 times in a minute. The operation was performed the following morning, (the 24th July), twelve days after he came into the house. It differed in very few respects from that performed in similar cases by Mr Abernethy.

I divided the integuments in a line nearly parallel to the linea alba, commencing about three inches and a half above Poupart's ligament, and two inches from the anterior superior spinous process of the os ilium, continuing the incision downwards nearly as far as the crural arch. The aponeurosis of the external oblique muscle being thus brought into view, was divided in the course of the external wound. I now pushed my finger under the inferior margin of the internal oblique and transversalis muscles, and, by means of the crooked bistoury, cut them across for about an inch and a half in the same direction. The peritonæum was then cautiously detached from the neighbouring parts, and the artery could be plainly felt pulsating under the finger; but I had some difficulty in separating it from the subjacent parts; however, by pinching it between the finger and thumb of the left hand, and gently scratching on each side of it with the hand of the scalpel, I at last succeeded in making an opening, through which I insinuated my finger, and having detached it for half an inch, drew it gently down, so as to see behind the peritonæum. I then passed an eyed hook armed with two ligatures under it,—carried the one as high as the separation would admit of, and the other to the lower extremity of the wound, and having tied both as firmly as possible, I divided the artery between them.

The wound was now closed by a single stitch, and slips of adhesive plaster, the upper ligature was left out above, and the under one below the suture. These being covered by a pledget of simple ointment, the whole secured by the T bandage, and the limb rolled in flannel, in order to preserve its temperature, the patient was replaced in bed. Very little blood was lost during the operation. He felt very comfortable, and complained of no pain in the wound, nor uneasiness of abdomen on pressure.

10 P. M.—Feels quite easy; no pain in the wound; had some sleep in the afternoon; and took a little tea and bread in the evening; pulsation of the tumour quite gone; that of the popliteal artery, which was imperceptible before the operation, is now felt, though feebly; pulse 100 and full; tongue clean and moist; skin hot, but covered with perspiration: no thirst; numbness of leg and foot gone; temperature of limb nearly natural.

To have an anodyne if requisite.

25th, 1 P. M.—Slept well during the night, without the aid of the anodyne; is free from all complaint; heat of leg and foot natural; pulse, which was 96 this morning, has now fallen to 88; tongue clean; thirst moderate; no stool. To have some panado for dinner.

10 P. M.—Still feels easy, though he has been troubled with a tickling cough during the evening; pulse 88; skin hot, but moist; thirst moderate.

To have a simple mucilaginous mixture for the cough.

26th, 1 P. M.—Passed a good night, and has no complaint, except the cough; took ten grains of the compound rhubarb pill last night, without producing a stool.

To have ten grains of Pil. Rhæi comp. immediately.

10 P. M.—Pills produced no stool; cough almost gone; pulse 88, and of natural strength.

27th, 1 P. M.—Not so good a night; much annoyed with cough; and this morning complained of pain in the right side of the chest, extending down to the wound, increased on coughing, or taking a full inspiration. Sixteen ounces of blood were taken from his arm, which relieved the cough. Blood drawn very sizy, and much cupped; pain of breast still continues, and complains of pain of abdomen on pressure; countenance anxious, and breathing oppressive; pulse 100 and strong; tongue furred; some thirst; wound dressed and looks well; a slight discharge of thick healthy pus.

Rep. V. S. ad deliquium animi.

Cap. quamprimum sulphatis magnesiæ ℥vi.

10 P. M.—Pain of breast and uneasiness of abdomen

gone. About twenty ounces of blood were taken when he became faint. Blood less sizy; three stools; cough easier; pulse 82, and of natural strength; heat of skin natural, and covered with a gentle moisture.

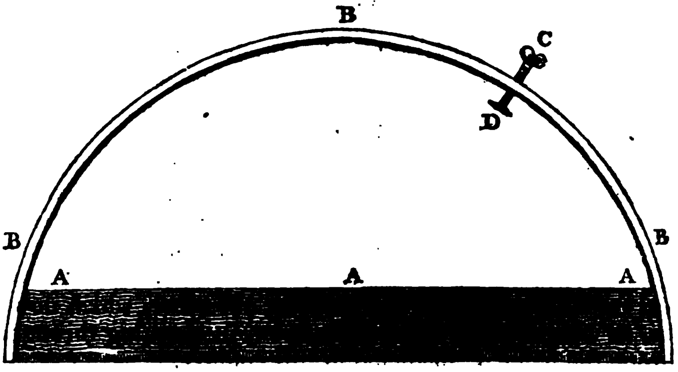
To have a mixture with aq. acet. ammoniæ, and an anodyne if requisite.

28th.—Slept a little during the night; continues free from pain; cough nearly gone; tumour diminished in size, and feels softer; pulse 82; tongue clean; skin moist; no thirst.

29th.—Slept some towards morning; every thing going on well; upper ligature came away to-day with the dressings; wound healing fast; slight discharge of healthy pus; pulse 84 and natural. From this time he continued to get rapidly well; the under ligature came away on the 12th day; the wound closed gradually, and was finally healed by the end of the fourth week. The tumour diminished slowly, and is now reduced to one fourth of its original size; his strength and appetite returned, and he is in as good health as when he came into the house. Although quite well, he still remains in the hospital, waiting an opportunity of returning to America.

In this case the cure has been more uniformly favourable, and attended with fewer untoward circumstances, than that of any one which has yet come under my observation. The most remarkable circumstances attending it were, 1*st*, The upper ligature coming away in so short a time; and, 2*d*, The speedy restoration of the circulation in the popliteal artery. The latter may be accounted for by the circulation of the blood through the femoral artery being stopt by the pressure applied previous to the operation, by which means a greater quantity of blood would be forced into the anastomosing branches, and thus cause them to enlarge. Although the attempt at obliteration of the artery by compression proved unsuccessful in this case, still I am of opinion it is practicable, and at least deserving of a trial, as there are several cases on record when it has been accomplished, although lower down the limb.

" Un marchand épicier, demeurant dans l'ile Saint-Louis, s'est récemment guéri d'un anevrysme de l'artère poplitée, en se condamnant, durant une année, à une inaction presque absolue, gardant le lit, mangeant peu, se faisant saigner tous les mois, et comprimant la crurale contre le fémur, vers son passage à travers le troisième adducteur. Il exerçait cette compression au moyen d'un demi-cercle d'acier élastique, analogue à celui des bandages herniaires; une vis, surmontée d'une pelote, lui servait à graduer à volonté la pression exercée sur le vaisseau. La douleur l'empêcha, dans les premiers tems de la continuer sans relâche; mais s'y etant accoutumé peu à peu, et en ayant augmentê graduellement la force, il est parvenu à affaiblir, puis à eteindre les batemens dans la tumeur qui s'est affaisêe, durcie, et réduite à un petit tubercule, formé sans doute par le sang coagulé, et adhérent à l'interieur de la poche anevrysmatique."—(*Dictionnaire des Sciences Medicales.* Vol. II. p. 96.)



AAA, A flat piece of wood, ten inches long and four broad, which passed in an oblique direction under the hip.

BBB, A semicircular piece of iron, which passed over the thigh, and was attached to each end of the wood.

C, A screw immediately over the artery.

D, A button on the end of the screw, which was applied over a graduated compress of slips of sticking plaster, and screwed down so as completely to stop the circulation of the vessel. The instrument was kept in the proper situation by two or three turns of a roller applied round the body.

Greenock, 25*th August* 1817.

XII.

Observations on the Character and Writings of the late William Royston, Esq. F. L. S. Fellow of the London Medical Society, one of the Editors of the London Medical and Physical Journal, and of the London Medical Repository, &c. &c. including Remarks on Medical Literature and Criticism. By JAMES ROBINSON SCOTT, F. L. S. Surgeon, Royal Navy, &c.

"He was a scholar, and a ripe and good one."—SHAKESPEARE.

As the cold and narrow precincts of the grave now contain the remains of one who possessed genius to improve, and to extend the elegance and utility of Medical Literature, and whose efforts to that end were not ineffectual; it is humbly hoped, that the medical public at large, as well as the friends of the subject of the present observations, will tolerate the publication of them;—the former from a liberal appreciation of what is due to the memory of a meritorious conductor of a public Journal,—and the latter, from the recollection of departed worth, and a degree of lenience to the anxiety of disinterested friendship.

When it is acknowledged, as it must be, by every living practitioner, that in no way are the best interests of medical science more perfectly advanced, than by the operation of *Periodical Journals*, conducted by men of undoubted capacity; it will also be kept in mind, that the subject of this paper conducted, in succession, two eminent British publications of this description, at a time when British medical learning flourished in its greatest splendour: adding to the celebrity of both, by the eloquence of his style,—raising the character of the one, while he continued one of its editors; and creating the other, which now assists, in conjunction with its brethren, in elevating throughout Europe the name of medicine in this country.

When we indulge in a liberal and comprehensive view of MEDICAL SCIENCE, we notice with delight its increasing union with polite literature, with the *elegant*, as well as the useful arts; we trace, with pride and satisfaction, its incorporation with so many collateral branches of study,—with pursuits which communicate the principal charm to the cultivation of intellect. Divest our art of that elegance which it has acquired from so many sources, and in an instant it will lose all its external attractions, and half its real efficiency. However solid in its principles, and learned in its character, its solidity will assume the features of dulness, and its learning of pedantry. The purest taste is not incompatible with the most profound research; and a medical writer should no more debase or sully the dignity or purity of medical literature, than a practitioner disgust the feelings of his patients by blustering rudeness, or intolerant authority.

Nevertheless, it is not attention to form only, but to substance, that the conductor of a periodical work of celebrity should be eminently capable of bestowing. Whilst occasional copious publications, like mountain torrents, swell the stream of medical literature, well established and well conducted journals are the smaller, but, perhaps, the more clear and permanent sources whence a fresh and valuable supply of information is ever derivable. The guardians of such sources have then, assuredly, a task full of solicitude and responsibility to perform; but whilst

I advert to such publications, generally, and their influence on science, and mark the talents and efforts of Mr Royston as a conductor of them, I consider him, also, as one who conferred benefit on his profession, to a certain degree, lasting as well as contemporary, not only by what he wrote, but by the influence of his taste—his frequently consulted judgment on subjects touching its literature; and his general intimacy with some of its brightest living ornaments.

In the capacity of editor of the "London Medical and Physical Journal," Mr Royston's name acquired a greater degree of publicity. He was joint editor with Dr Samuel Fothergill, a gentleman possessing a mind congenial with his own, as far as regarded elegant and classical accomplishment. Two individuals could not well have laboured together, better qualified to regulate the reception and arrangement of materials for the perusal of the public. For the task of a *reviewer*, an office liable to much abuse, but, when properly filled, of great utility, Mr Royston's reading and sound judgment certainly qualified him. The responsibility attached to this part of editorship is certainly great. It is the most delicate situation in which any literary man can be placed, but the business of a reviewer, or rather the business of reviewing, is too often conducted without any delicacy at all. I must not, however, anticipate some observations I intend to make on this subject as I proceed.

Mr Royston's views, as I well know, respecting those acquirements which a medical practitioner should ever aim at possessing, were clear and comprehensive. He who would hope for justly merited celebrity, and who is anxious for the true dignity of his art, should labour to possess acquirements, extensive, to carry him through the wide field of medical observation,—varied and increasing, to meet without embarrassment the various collateral discoveries in science which often throw such brilliant light on his profession;—acquirements of a nature far less perishable than adventitious notoriety, or even the influx of wealth, often consequent on the patronage of the great. To the high character of medicine as a profession, Mr Royston has elegantly and forcibly adverted, and also to the influence of *Journals* and *Societies*, as tending to exalt it, in the following words: "So extensive, indeed, should be the views of the Medical Philosopher, that the whole of the natural operations upon this earth, with the inventions and institutions of man, as constantly acting on the principle of vitality, require to be comprehended within the sphere of his investigation. Nor has there been a deficiency of men bred in the practice of the medical art who have penetrated to the profoundest depths in science. Natural history, chemistry, and botany; the functions of health, and the derangements of disease; moral and experimental philosophy; the operations of the mind, and the actions of corporeal organization; the visible creation, and the intellectual principle; the refinements of literature, and the abstruseness of mathematical learning, have equally been familiar to the physician. But, from various causes, scientific and philosophical researches have been extended, within a century, far beyond what had been witnessed at any preceding period. Among these causes, the formation of SOCIETIES, with the publication of their Transactions, and the establishment of MEDICAL JOURNALS, were not the least prominent." *

No one, however, could be better aware than the writer of the above paragraph, that, although the medical periodic press, when conducted with talent and liberality,—and Medical Societies, when established on strong foundations, and abounding with industry, are among the very first causes of improvement in the profession; its interests may be hurt,—its dignity in some degree lowered by both,—should vanity, presumption, or party spirit, assume the place of better qualities. *It is to be hoped*, however, that this is seldom the case. Perhaps, on the whole, the advancement of science cannot be much retarded by such occasional obstacles. When the pages of any Medical Journal exhibit frequent disfigurations, from the admission of inflated bombast—awkward pedantry—feeble and confused statements—or impotent virulence, the disease becomes its own remedy. The work *will* sink in public estimation, and soon cease to sully the fountain to whose clearness it ought to have contributed. In like manner, societies suddenly starting into existence, formed, perhaps, of the most raw and heterogeneous materials, may *puff* themselves for a time into unmerited notice; but, unless their character equal their pretensions, they will soon fall back into that obscurity for which they were naturally created.

Mr Royston's "Sketches of the progress of Medical Science," at first given annually, and afterwards continued half yearly, and again resumed when he became an editor and proprietor of the *Medical Repository*, are the best proofs the medical public have of his talents as an elegant and accomplished writer. Though he contributed several useful and important facts and observations to the Journals he edited, before he became, and while he was connected with them, † he displayed, more particularly, in these

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* Vide London Medical Repository, Vol. II. p. 2.

† Among his various anonymous papers, the reader will find an essay on Tobacco, in the 24th and 25th Vols. of the Medical and Physical Journal. It is altogether an excellent paper, instructive and amusing to the general, as well as

"Sketches," varied and extensive reading, strong and correct powers of observation, and distinguished critical acumen He filled the office of an unbiassed scientific observer, for the time he held it, with peculiar felicity of talent. His style was at once elegant and energetic;—and, without being laboured, pompous, or redundant, it will be found to be clear, elevated, and copious. He was ever of opinion, that taste and science should walk hand in hand, and he threw the charm of eloquence over many features of medical philosophy, by no means either the most familiar or attractive.

After the connection between him and *Sir Richard Philips*, publisher of the Medical and Physical Journal, ceased, he projected the LONDON MEDICAL REPOSITORY, the first number of which appeared in January 1814. The address to the Faculty, at the commencement of the first volume, is well written. Mr Royston was allied in this work with two gentlemen well qualified to undertake the task of conducting it, and who are its present editors, Mr A. T. Thomson, and Dr Burrows. Superintended by such editors, who were also proprietors, "the Repository" might be expected on rational grounds to succeed; and its success really surpassed expectation. The subject of these observations, however, feeling his constitution sinking within him, and being unable to give that attention to the work which was required of him, disposed of his share in it to his colleagues. At this time, the infirmities of my poor friend were hurrying his days to their conclusion! and this, too, without producing those external indications of ruin usual in cases of such extensive organic injury as his proved to be. Indeed, many of his professional friends, men of the first rank in medicine, never, I am led to believe, feared for his safety, till his disease had actually become *more than inveterate*. But, perhaps, nothing in the power of the healing art was likely to have availed after it had taken firm hold; and this, alas! was too probably the case, even before *he* began to suspect its existence to any extent, and most certainly before his medical friends *would believe it*. I must say, that I never witnessed a case, in which the external appearance of the patient corresponded less with his internal sensations, and the dreadful devastation which disease, as was afterwards ascertained, had but too surely committed. *

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to the medical reader. It is a curious history of tobacco, and displays much research. It is signed "Medicus."

* Inflammation in both sides of the thorax, tuberculated liver, morbid thickening of the pylorus, indurated spleen, with diseased splenic artery, indurated, pancreas, thickening of the coats of the bladder, kidneys much diseased, lessened, and indurated;—such were the appearances discovered on the dissection, performed by his friend, Mr Brooks, the celebrated anatomist. Vide London Medical Repository, Vol. VII. p. 116.

A derangement of the gastric functions, inducing a desire for food, bordering on bulimia, and the circumstance of but inconsiderable emaciation till towards the latter period of his life,—joined with the well known fact, that hypochondriasis is a very frequent complaint among studious medical men; tended to deceive his friends, professional as well as others;—*and they were deceived*, most assuredly, in his case; I will not except one whom he consulted in the first instance. Spasmodic difficulty of breathing, however, and frequent somnolency *latterly*, made the danger more evident. He had the very first advice the metropolis could afford;—but in vain! he expired on the 3d of December 1816, aged 55 years. His illness was of long standing, but it was neither caused nor accelerated by intemperance. He was an abstemious man, and, though a pleasing and cheerful companion, he never indulged in the pleasures of the table. Often when, during his painful suffering, he found, after trying many anodynes, none of which procured him rest, that a glass of warm brandy and water brought relief, and induced repose,—he took it with reluctance, knowing the fallacy of such a stimulus, and its insidious powers over the constitution.

Mr Royston did not settle in the British metropolis till 1806. He had previously succeeded in practice in the country, at Somersham in Huntingtonshire. A wish for better literary intercourse, and a design to publish, if proper encouragement should be given, a work which he had in contemplation, were the two principal inducements for his removal to London. On the design of this work I shall offer some remarks before I conclude these observations. His long cherished enthusiasm for whatever related to science, literature, and the fine arts, led him to indulge an inclination he had long formed, and could not well suppress, of taking up his residence in a city, where, amidst a constellation of talent, his perception might become brighter, and his intellectual sympathies more extended. He hoped that no very long period should elapse, ere he found himself in an easy and comfortable practice. He settled in Prince's Street, Cavendish Square, and was there known, and visited by gentlemen at the very highest point of professional eminence in medicine, and by many of the first amateurs and adepts in the arts;—and, what is of greater moment in estimating his character, they visited him for his talents, they derived pleasure and information from his *mind*;—they were satisfied with his conversation, though his circumstances might not be such as to enable him, in the manner of his more wealthy brethren, to gratify to satiety their palates, or dazzle their eyes with a display of domestic magnificence. When I make those remarks, I must at the same time observe, that in his own house he was liberal to a degree; but, even had his fortune been splendid, his inclinations were averse from the heartlessness of fashionable meetings—the superficial gratification, and dear bought notoriety, of what is called *seeing company.**

But whilst an individual, leaving a competent country practice, for the uncertain one of such a place as London, where the *scramble for patients*, amongst the variously gifted members of the profession, is incessant and violent, to a most surprising degree, ought hardly to wonder at any impediments he may meet with. Mr Royston's practice increased, though not very rapidly, yet equably, and certainly better than even the friends who advised his removal to London ought to have calculated on. I think I may here venture to make this remark, that, when a country practitioner has considerably passed the maturity of active life, as far as corporeal exertion is concerned, in a place where he has, as it were, for a series of years been striking root, it is a bold experiment to transplant himself to another, and a different soil, there to abide the chance of flourishing *in time*, or of being soon withered for lack of *patronage* In taking up his residence in a large city, he will often have every thing to fear, and seldom any thing to hope from those who practise his own art. And whatever his character and talents may be, unless his way be smoothed by the power of *interest* and *connection*, the balance of argument will be in favour of his abiding where his conduct and professional efforts have been long and duly appreciated. It requires a man in the very vigour of youth, or prime of manhood, to come forward on the great arena of the British metropolis, and to wrestle for the prize of professional conspicuousness and emolument. Talent, genius, assiduity, industry, perseverance, accompanied with genuine modesty of character, will not *of themselves* indemnify their possessors with a decent portion of pecuniary independence. There must be *other qualities* besides these, other extrinsic aid in view, before the practitioner of this day can feel himself at all " at ease in *his possessions*." The arbitrary operation of *patronage*, not, perhaps, often very discriminating or just, is daily felt more and more through every ramification of society. We too often find, that the boldest effrontery, the most profound ignorance, and the grossest empiricism, are no draw-backs in the acquisition of fortune, more particularly if such qualities are properly amalgamated with sycophancy and meanness, whilst silent but genuine talent and worth remain neglected and forgotten.

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* I do not wish here to insinuate any thing against social intercourse; but people may be *gregarious* without being *social*, as Miss Edgeworth has elsewhere remarked.

Happy is it, however, for those who, having arrived at the summit of professional fame and fortune, wear also the enviable laurel of professional excellence, bestowed on them by the more enlightened of their contemporaries; but although *their* names will not sink into oblivion, or be remembered with contempt, still it is but *too seldom* that even *they* are indebted *chiefly* to their talents and assiduity for their success. Mr Royston came to London too late in life, and his state of health, also, prevented incessant bodily exertion in his profession, nor, indeed, was he what is called "a money-making man;" however, he obtained a genteel competence, and, as he died without issue, his widow has been left at least decently independent.

Possessed of a well constituted mind, and gifted with a sound and genuine taste, the country practitioner may yet find innumerable sources of delight, consolatory even in the absence of wealth To one attached to the study of nature, many fatigues and disappointments will become less depressing. There can be hardly any district too barren, hardly any circle too confined, for the observations of the naturalist,—that will not afford him subject-matter for the most pleasing speculation,—and that may not present him with a chance, even of useful discovery. Much of the toil of my friend's life, before he settled in London, was sweetened by his love of nature, and by his perusal of her works. He was fond of mineralogy, botany, and natural history in general, *for their own sakes*, and although circumstances may not have put it in his power to add to the mass of facts in the above departments of science, or in natural philosophy, yet did he frequently exert himself, in the cause of physical knowledge, by useful and elegant remarks, by ably and strenuously deprecating hypothetical wrangling, and advocating the *good cause* of inductive research. As a lover of nature, he was fond of those arts whose province it is to copy, however feebly, her beauties. He was always much attached to the arts of colouring and design, and, as long as he lived, was fond of indulging in the rich feast provided for the man of taste, by the chisel, the pencil, and the graver.

As a *critic*, Mr Royston was judicious, but lenient. Many works of celebrity were reviewed by him; and he surely exhibited, on all occasions, a stronger disposition to analyze fairly, than precipitately to condemn. He was himself, however, severely treated by some brother censors of the medical press, on the appearance of a little work which he published in 1808. As the department of medical criticism is essentially connected with the progress of the healing art, I shall here offer some remarks on the circumstance above mentioned, and *on medical reviewing, and the present state of medical literature in general.* By some readers they may be thought misplaced; but I sincerely trust, they will not be deemed altogether unimportant.

Mr Royston had been engaged in collecting and arranging materials for "A Bibliographia Medicinæ Britannicæ," a work considered by many of the first ornaments of medical science, as a desideratum in the scientific literature of this country. In 1808, he published a pamphlet entitled "Observations on the Rise and Progress of the Medical Art in the British Empire; containing Remarks on Medical Literature, and a view of a Bibliographia Medicinæ Britannicæ." This little work is extremely well written, and contains many just observations. It proves that the author possessed that "grasp of mind," the gift of those who can plan, and, if properly encouraged, execute the designs of genius. For the completion of such a work, it is clear that sound judgment and patient investigation are the chief qualities. But, however permanently useful to a country, such a work, if properly executed, would prove, or however honourably posterity might estimate its author,—a man of moderate fortune must pause, on contemplating the probable slowness of indemnification, for the expence of time and labour bestowed on it. In the present day there is not so great a chance of such a laborious undertaking obtaining a demand at all commensurate with its real worth. Mr Royston was often urged by his friends to publish it in numbers; but when he had gone a certain length in its prosecution, he found that the general encouragement held out for its completion, or, if completed, for its *publication*, was far less than he had fondly hoped for. The design, however, was much approved of by the majority of those who may be considered competent judges. Dr Young makes mention of it in his "MEDICAL LITERATURE," page 43. In the same page, in reference to Ploucquet's work, he says, "there is no science in which selection is so important and so difficult, as in medicine,"—a most judicious remark, and doubly pertinent *in the present wilderness of medical publication*. The goodness of Mr Royston's judgment, his ability in discriminating true from spurious philosophy, fitted him for the important task of *selection;* and from his critical taste, and the style of his composition, it may fairly be presumed that he could have done ample justice to the undertaking; and it is undoubtedly to be regretted, that the circumstances in which he was placed, with respect to bodily health, and the prospects of indemnification, did not concur in favouring its completion.

An anonymous writer in the Antijacobin Review for June

1808, among other observations on Mr Royston's publication, quaintly elaborated the following, viz.—"We do not know any greater use of *Bibliothecas* than to foster indolence, generate vanity, and increase pedantry and superficialness. Such works are never encouraged in any country, unless before the public have attained a taste for inquiry, or after they have lost it." And again, "Mr R. appears to possess talents adequate to the task in which he is engaged; and if we can induce the people of the united kingdom to depend more on temperance than on drugs, for the recovery or preservation of their health, we shall wish his work every possible success." Such is the *superficial* flimsy jargon of a conceited reviewer, on which it is hardly worth while to waste any remarks. It is manufactured in the usual style of the minor critiques in the common run of inferior miscellanies, which, by a sweeping assertion, or flippant paragraph, *appear* to do great things, and perhaps leave on the idle portion of their readers a strong impression of profound erudition and oracular dignity. The "*Slashing Bentley*" of the review above mentioned, also says, "On the decline of states we usually find their philosophy and literature minced down into dictionaries and *Bibliothecas*." Now, this last sentence is mere nonsense. In a note in Mr Royston's handwriting on the margin of this review, now before me, is this remark: "As states rise into a high degree of civilization, their literature and science increase and accumulate; and *in consequence* Bibliothecas become useful and necessary." This critic, whoever he is, does not know that the character of a *Bibliotheca* comes nearer to that of a Review, than to a *Dictionary*. In fact, it should be a good review, on a great scale, extending, in a certain department of science, back to a period of publication, long prior to the institution of critical journals.

No one can doubt, however, notwithstanding the palpable examples exhibited in many reviews, of inadequacy to their task, or of characteristics worse than this, of their *general* utility. Numbers of them certainly exhibit the most glaring instances of the abuse of a thing *in its principle good*. Medical critics should, most especially, keep clear of such blemishes. When, indeed, vast quantities of medical books issue from the press, neither containing any thing new, nor exhibiting any thing old in a new light; adding to the heavy expence of study, *ostensibly* original works, but covertly only ponderous and circuitous *advertisements*; preceding, not consequent on practice;—the *intended cause*, not the valuable result of professional experience: *—it is then that the medical censor should speak out, forcibly and firmly. To stop, or, if he cannot stop, to divert the wordy torrent, to point out *only* what is excellent to the student, to whom money often may be, and to whom time always ought to be, most valuable; he must mark, with decided disapprobation, literary quackery and pseudo-philosophic imposition, whether of *native or of foreign growth*; and discriminate between productions likely to facilitate the anxious progress of the student, and crude compilations fitted for the mere "helluo librorum."* He should separate what are real improvements in science from scholastic hypothetical *dicta*, too often palmed on the world under the semblance of system. To do this is to do right; but the task is not easy, nor the gratitude of the public very abundant for the performance of it. It is become, however, an indispensable duty, and if, in the discharge of it, the critic acts from pure motives, positive utility to science may be the result of his efforts, and he will have for consolation, at the least, the "mens sibi conscia recti."

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* See also excellent observations on medical book-making by Mr Royston. Med. and Phys. Journal, Vol. XXIV. p. 2.

But whilst, on the one hand, medicine has to lament the *quackery* of book-making, she is, on the other, often compelled to regret the loss of much excellent practical observation. Many practitioners of celebrity, who have obtained the "otium cum dignitate," consequent on long success in life, ought to be less reluctant in giving the world condensed views, at least, of their extensive experience. Few such works as those of HAMILTON and HEBERDEN appear *in an age*; and yet many eminent physicians, of practice equally extensive, too churlishly withhold from their brethren the results of their truly useful labours. Satisfied with having basked in the very sunshine of practice, it is to be regretted, that they who have, as it were, for a series of years been absorbing so much of the light of experience, should not reflect *some of its rays* upon the less enlightened of their contemporaries.

I now conclude this paper. It may be said by many, that in some places I have used too much the language of panegyric. It may be so, perhaps it is so. For the general strictures included in these observations I offer no apology:—"Licet omnibus, licet etiam mihi, dignitatem '*Medicinæ*' tueri; potestas modo veniendi in publicum sit, DICENDI PERICULUM NON RECUSO."

Edinburgh, July 1817.

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* ———— "He who reads
Incessantly, and to his reading brings not
A spirit and judgment equal or superior,
Uncertain and unsettled still remains,
Deep versed in books, and *shallow in himself*."—MILTON.

PART II.

CRITICAL ANALYSIS.

I.

Medico-Chirurgical Transactions, published by the Medical and Chirurgical Society of London. Vol. VII. Lond. 1816. pp. 601.

We have great satisfaction in following the progress of this active and enlightened society. Each succeeding year confirms its well-deserved reputation; and we do not hesitate to assert, that no contemporary collection can compare with it in practical utility. Our analysis of its contents we intend to be little more than a methodical index, because we would wish the work itself to be in the library of every medical practitioner who reads and takes any interest in the progress of his profession.

The only anatomical paper is from Mr Howship, (No. XXVI. p. 387, and Supplement, p. 581,) containing some microscopical observations on the structure of bone. His object is to shew, that, besides the general medullary cavity, there are, in the most solid parts of longitudinal bones, an infinite number of longitudinal canals, anastomosing with each other, lined with membrane, and filled with medullary matter, and also transmitting vessels, which do not, however, fill their cavity, as generally supposed, but are of a comparatively small diameter. These ideas are illustrated by plates, in the construction of which Mr Howship has exerted much ingenuity and labour.

The peculiarities in the anatomical structure of the Hottentot female are described, (No. X. p. 154,) for decency's sake, in classical Latin, by Dr Somerville, whose official journeys in the country, joined to his professional knowledge, enabled him to give us the most accurate information on the subject, and has left nothing to be discovered by the dissection of the Hottentot Venus, even by the anatomists of Paris. The apron is ascertained to be long nymphae, adhering at their upper edge, so as to appear a simple organ. It sometimes hangs five inches out from the external labia. The rump consists of nothing but a mass of fat deposited between the muscles and the skin, and constitutes a singular analogy with the fat-tailed sheep of the same country. The whole paper is curious, and makes us wish that Dr Somerville, who must possess the materials, would communicate to the public, more, or rather all of the information he acquired concerning that singular people and country.

A very singular monstrous fœtus is described by Mr Maunoir of Geneva, (No XVI. p. 257.)

> "In order to obtain a correct idea of the form of this singular being, we must imagine two female fœtuses, each divided transversely into two portions; the one containing the greater part of the trunk, the head, and pectoral extremities, and the other consisting of the pelvis and the pelvic extremities. We must then suppose the operation of some blind power tending to repair this injury, and to reunite all the parts that had been separated; but which, instead of bringing each portion in contact with the corresponding part from which it had been divided, had united the trunk of the one with the trunk of the other, and the pelvis of the one with the pelvis of the other; so as to form on the one hand, an individual composed of a very irregular kind of trunk, with two heads and four pectoral extremities: and on the other a being consisting of two pelves, and four pelvic extremities. Lastly, we must conceive this latter being united to the former by being placed transversely upon it on its back, just as a sack of corn is laid on the back of a mule."—pp. 258, 259.

Mr Langstaff (No. XXX. p. 487.) gives a very accurate dissection of an extra-uterine pregnancy in the Fallopian tube, which has some peculiarities. It is also valuable, as pointing out a cause of sudden death, where it might not be suspected. The plate, besides its principal object, gives one of the best views we have met with of the *corpus luteum*, both in recent and preceding pregnancies.

In the department of physiology, we have a very ingenious paper by Mr Earle, (No. XII. p. 173.) Mr Earle found, that when the axillary plexus of nerves on one side was crushed by a fall, the temperature of the paralysed arm of that side was considerably lowered; that the temperature of paralysed limbs in general is lower than those of the sound side; that paralysed limbs are more easily affected by external heat and cold than sound limbs; on the other hand, that increased nervous action is accompanied by increased temperature; and that increased determination of blood to a part is attended by increased nervous action.

> "It appears, then, from the evidence which has been adduced, in the first place, that an integrity of the nervous system is essential to the evolution of animal heat, and that when any part of it is impaired by accident or disease, the due performance of this calorific function is either partially or generally deranged. Secondly, that the stimulus of arterious blood is necessary for the excitement of the brain and nerves, and likewise for the proper developement of animal heat. Thirdly, that there exists a considerable sympathy between the nervous and sanguiferous systems, and that an injury inflicted on a nerve is attended with an increased arterial action, and a local determination of blood. Lastly, that such a local determination, whether the effect of disease or injury, is accompanied by a sensible increase of temperature at the part."—pp. 191-2.

Mr Earle also offers a very ingenious explanation of the increased temperature which sometimes occurs on tying the principal artery of a limb. We value these facts, as proving, connected with the observations of Mr Brodie and others, the influence of the nervous system in the production of animal heat; but we fear there is some danger of our having deserted one partial view of the subject only to adopt another. Besides the influence of an increased determination of blood in increasing nervous action, so justly stated by Mr Earle, physiologists should keep in mind, that, in all cases where carbon is converted into carbonic acid, heat is evolved; and that, in respiration, carbonic acid is formed, and heat must be disengaged from the combined oxygen, although it may be rendered latent by the increased capacity of the oxygenated blood.

Dr Nicholl (No. XXXII. p. 477.) gives a very accurate account of a congenital imperfection of vision, consisting principally in confounding green and dark yellow with red, and pink with blue. In this case, the imperfection existed in several individuals of the family. Instances of this species of imperfection are not very uncommon. We have met with it more than once; but they probably all differ in some particulars, and it would be interesting to ascertain precisely the circumstances in each case, by examining them with every variety of colour, and on various surfaces.

On the subject of fever we have an interesting paper by Mr Bacot, surgeon of the First Regiment of Foot Guards, (No. XXV. p. 373.) describing the loss it sustained in Spain during the winter 1812-13, from an asthenic form of that disease. It also contains some judicious observations on the bad effects of suddenly subjecting troops from the militia to the hardships of active service.

Dr A. P. Wilson Philip (No. XXXIV. p. 499.) has given an able monography of a species of pulmonary consumption very frequent in Great Britain, to which he has given the name of dyspeptic consumption, as being excited by, or connected with, a diseased state of the digestive functions. In investigating the nature of this disease, Dr Philip has been led to give a view of the sympathy which exists between the state of the digestive organs and the principal seat of derangement in some other diseases, which merits the attention of the medical practitioner.

Mr Stanley (No. XXI. p. 323.) has given a very decided case of inflammation of the muscular structure of the heart.

> " We have here presented to us, an instance of inflammation attacking the heart, so violent at to pass immediately into suppuration, and at the same time so destructive, as to prove fatal in four days from its commencement; and yet, of the symptoms which arose, there was not one which appeared directly referable to the affected organ ; on the contrary, from their general tendency, the attention of the practitioners was diverted from the central organ of the circulation, the actual seat of disease, to the centre of the nervous system, where there existed no organic derangement."—pp. 328-9.

Dr Black of Newry, to whom the profession are already indebted for two papers on Angina Pectoris,* has here (No. II. p. 70.) given his further observations on that singular disease, and has subjoined the general conclusions which he has been able to draw from a full consideration of the subject.

Every thing relating to the celebrated traveller Saussure is a matter of high interest to all who take delight in the history of nature. An account of his last illness, which was of a paralytic nature, and of the appearances on dissection, is written by Dr Odier, (No. XVIII. p. 211.) to which Dr Marcet has subjoined an account of the treatment of Professor Ferguson, who survived an attack of hemiplegia for forty years. This was drawn up for the information of Saussure by Dr Black, thus uniting, in our recollection, as Dr Marcet well observes, such men as the sagacious discoverer of latent heat, the distinguished historian of the Roman republic, and the intrepid explorer of the Alps.

Under the title of History of a Case of Chorea Sancti Viti, occurring in an adult, cured in an unusual manner, Mr Kinder Wood (No. XV. p. 237.) has detailed a very extraordinary case of a morbid propensity to dance in time to an air inaudibly muttered by the patient, or passing in her mind, or to the singing of others, or the music of the fife and drum. It was interrupted and finally put a stop to by the loud rolling of a drum, which had no cadence by which she could measure her steps. In the times of superstition, this is one of those cases which would have been ascribed to the agency of witchcraft, and might even then have been cured by the drum, as an instrument of exorcism. It is perhaps improperly denominated a case of Chorea Sancti Viti, and much more resembles the Tarantismus of Sauvages, or leaping ague of Forfarshire,* than the convulsive disease of children.

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* Memoirs of the Medical Society of London, Vols. IV. and VI.

In No. XXXI. p. 448, Dr Dickson, physician to the fleet, transmits four cases of tetanus, with dissections, by Dr M'Arthur, with introductory observations on various points connected with the causes and treatment of the disease. Dr Dickson is anxious that greater attention should be paid to those symptoms, by which the disease generally gives warning of its approach, and particularly to the prevention of that torpid state of the bowels which so undeviatingly precedes the attack.

> "The torpor of the intestines, which precedes and accompanies this disease, is highly deserving of attention. Mr Abernethy observes, that in four cases where he inquired into the state of the bowels, the evacuations were not like feces; and he proposes as a question in investigating the cause, what is the state of the bowels between the infliction of the injury and the appearance of this dreadful malady? The testimony also of various authors as to this state of obstinate costiveness, the offensive nature of the intestinal contents, and the reasoning of Dr Hamilton on this subject, are strongly in favour of the presumption, that the late infrequency of locked-jaw in the West Indies, in the public service, is chiefly owing to the greater freedom with which purgatives have been employed of late years, particularly since the appearance of his very valuable publication; and, I hope, sanction the opinion, I am sanguine enough to entertain, of the great value of this class of remedies, if not so much for the cure, at least for the prevention of tetanus. The unfavourable prognosis so often verified in tetanus, ought not to shake our perseverance in the remedies, though it must heighten our conviction of the powerful and intractable character of the complaint."—pp. 454-5.

The dissection of Dr M'Arthur's cases, also discovered a very peculiar affection of the intestines, which favours Dr Dickson's ideas.

"Inflammation of the stomach and intestines, and, in two cases, a peculiarly offensive smelling yellow matter, pervading the intestines, were the most prominent morbid deviations from health, which were discovered upon opening the bodies from four to six hours after death. But whether the inflammation be a primary or secondary affection, I am not prepared to answer. In severe instances of the opisthotonos, no doubt the pressure of the abdominal muscles on the contained viscera might induce inflammation; for when the muscles of the neck and back are thrown into contractions, the abdominal muscles act as antagonist muscles with great violence; and the abdomen, during the continuance of the spasm, feels hard like a board under the hand. The inflammation in this disease is different from enteritis, or from that which is present in persons who die of the endemial fever of the country. In enteritis, the intestines often adhere to one another by layers of coagulable lymph, recently thrown out; flakes of curdled matter are often found, and pus sometimes is formed. In the inflammation attending tetanus there are no adhesions, no formation of pus. In the endemial fever, the whole of the small intestines is more uniformly inflamed; the internal coats of the stomach and intestines exhibiting gangrenous spots and patches. The colon always contracted, but very rarely inflamed. In tetanus the colon was equally inflamed with the small intestines, and not contracted. The yellow matter found in the stomach and intestines is very remarkable."—pp. 474—476.

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* See Inquirer, No. XI. On some convulsive Diseases common in certain Parts of Scotland. Edinburgh Medical and Surgical Journal, Vol. III. p. 434.

Mr Stanley (No. XXVII p. 404.) has observed that rickety bones, in the process of restoration,

"Will sometimes acquire increased breadth in the direction of the curve, losing a proportionate degree of thickness in the opposite direction; hence the bones become as it were newly modelled, passing from the cylindrical into the flattened form; this would seem to be designed for the purpose of enabling them to support more efficiently the weight of the body, since, by this alteration, they acquire increased breadth and power of resistance in that direction, where the greatest strength is required."—pp. 405-6.

A case of ossification and boney growth of the cartilages of the larynx preventing deglutition, is recorded by Dr Travers, (No. IX. p. 150.)

In no branch of surgery has its modern professors so far surpassed their predecessors, as in their boldness and success in tying arterial trunks. We have heard that a ligature has been applied even to the descending aorta of a living man, though without success. In the present volume we have histories of the common carotid being successfully tied, on account of a wound of the face causing alarming hæmorrhagy, which could not otherwise be suppressed, by Mr Collier, (No. V. p. 107;) and for the purpose of enabling a large tumour on the face and neck, to be removed, by Mr Goodlad, (No. VI. p. 112.) Mr

Collier also tied the external iliac, (No. VII. p. 136,) on account of an aneurism of the femoral artery, from a gunshot wound, but unsuccessfully. It was done successfully by Mr Soden, on account of an inguinal aneurism, (No. XXXV. p. 536.)

But while surgeons have chiefly directed their attention to the tying of the great arterial trunks, they have not neglected the mode of performing the operation upon vessels of a smaller size; and Mr Guthrie, (No. XXII. p. 330,) has described the manner in which he succeeded in tying the peroneal artery, in the calf of the leg, on account of hæmorrhage from a gunshot wound of the leg.

The Surgeon General of Ireland, in a paper of considerable length, (No. XXIV. p. 341,) brings forward some important considerations, calculated to throw doubts upon the propriety of always having recourse to tying the artery for the cure of aneurism; and Mr Crampton supports his reasoning, both by experiments on animals, and two cases in which aneurism was cured by simply compressing the artery, so as to interrupt the circulation through it for a few hours.

> "The operation for aneurism was performed in the following manner: The femoral artery was laid bare at the usual place by an incision, not exceeding three inches in length, and a tape, one-eighth of an inch in breadth, was passed under it by means of the aneurism needle. The ends of the ligature were passed through the holes in the foot of the *presse-artère*, and then crossed through the hole in its stalk. The artery was gently compressed by drawing the two ends of the ligature in an opposite direction, until Mr Stringer, who kept his hands applied to the tumour from the commencement of the operation, announced that the pulsation had ceased. The ligature was then secured by passing a small peg of wood through the hole in its stalk, and a small dossel of lint was laid on each side of the instrument, in order to steady it in the wound (a precaution which I have ascertained to be unnecessary), and the sides of the wound were gently approximated by two or three strips of adhesive plaster. The operation was completed in about twelve minutes."—p. 365.

Mr Brodie (No. XIII. p. 195.) describes a successful method of performing a radical cure of varicose veins in the leg, without incurring the risk attending the tying of the vena saphena. It consists in dividing, by a peculiar bistoury, the affected veins, while the skin is left as entire as possible, and pressure is applied to prevent hæmorrhage.

In the case of a gunshot wound of the shoulder, which shattered the head of the humerus, Mr Morel, (No. XI. p. 162.) instead of amputating the limb at the shoulder-joint, cut out the head of the os humeri, and parts of the humerus, and with great success, for in little more than a month from the operation the history of the case is terminated by the following report.

"The wound requires no further dressing, and the man is in excellent health. The distance between the cup of the scapula, and the extremity of the humerus, is not more than an inch and a half. On measuring the arm, from the top of the acromion to the points of the elbow, the difference between it and the other arm is about one inch and a fourth. There is a little motion in the shoulder, but all the variety of motions, of which the fore-arm and hand are capable, are preserved, and he is daily acquiring more strength. I have within the last month seen the man; he is completely recovered, and has the perfect use of his fore-arm and hand."

The introduction of a seton between the ends of a fractured bone, which shewed no tendency to unite, was successfully had recourse to by Mr Stansfield, (No. IV. p. 103;) and Mr Boggie, (No. XXIII. p. 338,) employed the same method of treatment, with excellent effect, in the case of a gunshot wound and fracture of the tibia, in which the healing process had ceased to make any progress.

Dr Dewar, in a paper on the treatment of sinuous ulcers, (No. XXXIII. p. 482,) insists particularly on the accurate application of graduated compression by bandages, so as to bring and keep the sides of the bottom of the sinus in contact, and to allow the free escape of the pus by the orifice.

An unsuccessful attempt to cure a hernia of the dura mater, connected with congenital hydrocephalus, upon the principle employed by Mr Astley Cooper, for the radical cure of spina bifida, was made by Mr Henry Earle, (No. XXIX. p. 427.)

"Although this case terminated unfavourably, it proves that a radical cure may be attempted with impunity in similar cases, and affords a good illustration of the process by which a cure is to be effected. I consider it interesting, as it shews that the water contained in the ventricles may be partially drawn off, without causing syncope or any apparent disorder in the function of the brain; this probably depended on the yielding state of the parietes of the head, which readily accommodated itself to the diminished bulk of its contents; and on the great caution which was observed not to admit any air at the punctures. In a similar case, which a medical man mistook for an encysted tumour, and which he suddenly removed, death instantly ensued.

"As an insulated and unsuccessful case, this does not, perhaps, merit much attention; but as a sequel to the important facts recorded by Mr Cooper, it may not be unworthy of notice. The punctures with the lancet were not resorted to until the sac was too thick for the introduction of the stilet and canula; no serious consequences followed the two first punctures, and the last healed, but the flap afterwards ulcerated, from being attacked with erysipelatous inflammation. I have delayed giving publicity to this case, in the expectation of being able to repeat the experiment; but as instances of this form of disease are of rare occurrence, no opportunity has since offered itself in which I could attempt it. I am now induced to submit it to the Society, as the first recorded instance in which an operation has been attempted, even with partial success, and entertain sanguine hopes that it may be repeated with more favourable results."—pp. 433-4.

An unsuccessful instance of the Cæsarean operation is detailed by Mr Kinder Wood, (No. XXII. p. 264,) with some convincing remarks on the necessity of resorting to it in some cases before the patient be exhausted by protracted labour, or the parts are injured by frequent rough examinations, and while there is a probability of saving the infant.

In a former volume, (Vol. V. p. 96,) Mr Earle published some observations on contractions succeeding to extensive ulceration, and proposed a method of cure, by removing the whole cicatrix, which was supported by its success in a solitary case. On the present occasion (No. XXVIII. p. 411.) he confirms the utility of his proposal by a detail of several other cases.

Mr Wardrop has communicated a short but satisfactory paper, (No. XVIII. p. 278,) on a very painful and distressing accident, which is overlooked by surgical writers, the laceration of the fibres of muscles, particularly of the external gastrocnemius. It generally occurs from some untoward and sudden exertion, and is cured by retaining the limb in such a position, that the lacerated extremities of the fibres are kept as much in contact as possible.

The communication on artificial pupil by Mr Maunoir, (No. XX. p. 301,) is valuable not only on account of his success in very untoward cases, but also from its containing the latest opinions of the celebrated Scarpa on the subject.

Mr Kinder Wood's history of a very fatal affection of the pudendum of female children (No. III. p. 84.) is extremely interesting. It seems to constitute a peculiar kind of eruptive fever, perhaps somewhat analogous to the herpes preputialis of the male. As it is only in the early stages that medicine is of any use, we shall quote Mr Wood's description of its first symptoms, with the requisite treatment.

"The commencement of this affection is attended with chilliness succeeded by heat; slight pain in the head, dulness, nausea, loss of appetite, and thirst; the tongue has a clay-coloured deposit; the bowels are torpid, and the patient is languid, inert and listless. These symptoms precede the affection of the pudendum about three days. The patients first call the attention of parents more particularly to

> the seat of the disease, by complaints of pain in voiding urine, or, when too young, this is observed by the cries and struggles of the child during the act of emptying the bladder. When the genital organs are examined, one or both labia are found inflamed and enlarged, the inflammation is of a dark tint, and soon extends internally over the clitoris, nymphæ, and hymen; the pain in voiding the urine, may induce a supposition that the inflammation extends into the urethra, and a thin secretion, which at this period may be observed coming from these parts, renders it not improbable that the lower part of the vagina may be affected."—pp. 85-6.
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> "In this disease, the first part of the treatment is to move the sluggish bowels, for which purpose a sufficient dose of the submurias hydrarg. with pulv. rhei, will answer best, and uniformly bring away dark-coloured and offensive stools. The affected parts should be frequently washed with the liquor plumbi acetatis dilutus, slightly aired, and poultices made with the same liquor, and soft bread, applied warm immediately after the parts have been washed. The intention of these means is to sooth and diminish the inflammation, and they should be persisted in during the inflammatory action, and till the progress of the ulceration is checked, and even longer, if tenderness, excoriations, or aphthæ, should affect the perinæum or anus." —pp. 92-3.

The possibility of this disease being considered as evidence of venereal infection and violence offered to an infant, is not to be overlooked, as is sufficiently apparent from the occurrence of the case of Jane Thompson, cited by Dr Percival;* but we must take care of not running into the opposite error of ascribing inflammation, ulceration, and discharge, in cases when violence has been alleged, to this disease, without sufficient grounds; for it is extremely improbable, that a disease, which occurs so very rarely, should happen to appear in a child to whom violence was offered, unless the violence had some effect in producing it.

The facts illustrating the effects of the venereal disease, on the fœtus in utero, and its modes of communication, by Mr Hey of Leeds, (No. XXXVI. p. 541.) will be read with that interest which his great experience, and acknowledged talents, cannot fail to excite. Mr Hey, as might naturally be expected, has not relinquished the opinions which have regulated his practice successfully for more than half a century, and still believes, that syphilis can only be cured by mercury, and that mercury may be so managed as to cure syphilis safely.

"When the notice of syphiloid diseases was first laid before the public by Mr Hunter, the chief force of his argumentation was derived from this consideration, that, although the diseases had a considerable resemblance to syphilis, yet, being cured without mercury, they were thereby proved to be of a different nature. Now, if this reasoning is allowed to have validity, we may suppose the converse of it also to be valid. If the disease in question have the usual symptoms of syphilis, and will yield to no other remedy than mercury, we may fairly conclude that it is syphilitic. What is our design in giving distinct names to diseases, but that we may thereby be directed to select the appropriate remedy for their cure? If my patient obtain the desired benefit from my nomenclature, a defect in my theory may well be excused."—p. 549.

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* Medical Ethics, by Thomas Percival, M.D. 8vo. Manchester, 1803, pp. 105, 291.

Perhaps no change in medical opinion is more singular, than that which has of late taken place with regard to the agency of mercury in syphilis. We are now taught, and apparently upon sufficient grounds, that mercury, improperly exhibited, is capable of producing all the evils which were once considered as exclusively the effects of the disease for which it was supposed to be the only specific; and, what is still more extraordinary, that syphilis, in its usual forms, may be cured permanently without the exhibition of one particle of mercury; so that the received criterion for distinguishing syphiloid diseases from real syphilis has no foundation, and it is to the supposed remedy, and not to the disease, that so many noses, and even lives, have been sacrificed. What are we now to think of experience in physic? Why was syphilis considered to be incurable before the supposed discovery of mercury as its specific? Why is the abuse of mercury in hepatitis, and other diseases, never followed by symptoms having any resemblance to those of syphilis? and why have so many practitioners been almost uniformly successful in their treatment of syphilis by mercury? *Adhuc sub judice lis est.*

Dr Edwin Godden Jones (No. I. p. 1.) has given a very minute analysis of the waters of Spa, in which he supplies the deficiencies, and corrects the errors of his predecessors, Bergmann and Dr Ash, arising from their not having examined them on the spot, or from the imperfection of the means of chemical analysis. The waters are obtained from a variety of sources or wells; but Dr Jones found, that, contrary to the commonly received opinion, they were all of the same nature, and differed only in the quantity of foreign ingredients. The strongest and most celebrated, which was formerly an article of extensive commerce, is the waters of Pouhon. The ingredients contained in a wine gallon, or 231 cubic inches, are exhibited in the following table:

	Average of four sets of experiments.	Last experiments after rainy weather.
" Carbonic acid gas -	262.0 cubic inches	——
Residue by evaporation -	26.8 grains	32.3 grs.
Which was found to consist of	——	——
Sulphate of soda - -	0.92	0.80
Muriate of soda - -	1.26	0.95
Carbonate of soda -	2.45	2.00
Carbonate of lime -	9.87	13.82
Carbonate of magnesia -	1.80	2.97
Oxide of iron - -	5.24	5.45
Silex - -	2.26	3.27
Alumine - -	0.29	0.38
Loss - -	2.71	3.68

" The water of the Pouhon fountain, therefore, appears to be a powerful and highly carbonated chalybeate, containing more iron, and particularly more carbonic acid, than almost any with which we are acquainted; and from these two ingredients are its medicinal properties to be estimated, for the others are in quantities too small to be taken into the account."—p. 27.

From the excellent view of the constitution of mineral waters, published by Dr Murray, and which we communicated to our readers in a former number, there can be no doubt, that the state of combination of the ingredients of the Spa water, exhibited by this table, is not that in which they exist in nature, but is the result of the mode of analysis, and will therefore vary with its processes. We would therefore recommend, that, for the purpose of comparison, and avoiding erroneous views, in future, the quantity of each acid and basis, earthy or metallic, should be stated separately.

Professor Smith Barton of Philadelphia (No. VIII. p. 143.) refers for information concerning the Pyrola umbellata, with the diuretic powers of which Dr Somerville had made us acquainted in the preceding volume, to the third edition of his Collection for an Essay towards a Materia Medica of the United States, published in 1810. He also praises its use in calculus, considering its effects as very analogous and equal to those of Uva ursi. It is remarkable that both of them have been observed to give a black colour to the urine, from their use internally.

Dr Albers of Bremen (No. XIX. p. 284.) gives the detailed history of a case, where the skin acquired a dark-blue or almost black colour, from the use of nitrat of silver, long continued, for the cure of epilepsy, and subjoins a short notice of three other cases observed at Hamburgh. In an addition to this paper, Dr Roget mentions, that he had observed the same effect in two cases in his own practice; and that last year it was particularly noticed in an inaugural dissertation, published at Geneva by Dr Butini junior, *De usu interno præparationum argenti*, who found this effect of silver first noticed by Fourcroy, in the first volume of his *Medicine eclairée par les sciences physiques.*

From comparing the facts here collected, the following conclusions seem to be warranted:

In some individuals the internal use of nitrat of mercury has produced a dark colour of the skin, of a blue or purple hue, or approaching to black.

This change seems to be independent of sex, or the disease under which the patient previously labours, as one was a case of obstructed liver (Fourcroy), but most of them suffered from epilepsy.

In general, the disease had yielded, or become mitigated, previous to the change taking place, but in some the fits continued, or were renewed after the appearance of the colour.

It never occurred, even from the largest doses of the nitrat of silver, unless when continued for a considerable length of time, but the protracted use, even of a small dose, was capable of producing it.

It occurred only on the skin of the surface of the body, and, in one case, of the tongue and fauces (Roget). The blood was not affected (Albers).

The whole of the skin is occasionally, or more or less affected; but those parts exposed to the light and air most remarkably. Thus, in Dr Albers's case, it spread over the whole body, but was most intense on the face, on the forepart of the neck, as far as the middle of the bosom, and on the hands and nails. In two other cases, it was more particularly visible in those parts which are exposed to the light, as the face, hands, neck, and articulations; the colour was less strong on the body. In Dr Roget's case, the tongue and fauces first acquired a very dark colour, as if stained with ink, and afterwards the complexion was observed growing dark. This change was first observed about the eyes, but not particularly about the lips, and gradually proceeded, affecting equally the skin over the whole body. In the case mentioned by Fourcroy, the skin became almost entirely black. Lastly, in Dr Butini's case,

"The head, and especially the face, is tinged with a deep violet approaching to black, and having a complete similitude to the negro, or to a bronze bust. The hands are as deeply coloured as the face. The sclerotica is but little changed; the rest of the body, which is covered by the clothes, has preserved its natural hue, with the exception of a very slight tinge, scarcely perceptible unless in the shade, but still sufficiently manifest to shew that the whole skin has partaken of the affection produced by the silver."—p. 294.

The change, after being produced, seems to be very durable. After a time it somewhat diminished on the tongue and fauces of Dr Roget's patient, but on the skin it remained unchanged after reaching its maximum. Dr Albers, however, made the following observation in his case:

> " Whenever the patient holds her arms in an erect posture, the blue colour is considerably lessened, and even disappears almost entirely. The sclerotica is likewise considerably coloured. The patient has on the arm a large scar, the result of a former issue, which appears quite white; at least I can discover no bluish hue in it. The blue colour is not of the same depth at all times, but often changes several times in one and the same day, without there being any determinate reason for it. At one particular time, however, it appears strongest, namely, at the epoch of menstruation, after the accomplishment of which it again vanishes."—p. 286.

On the contrary, in Dr Roget's case, the period of menstruation had no apparent connection with these changes.

No remedies tried had any effect in removing or lessening the colour. It resisted sulphuric acid, nitric acid, chalybeates, baths of different kinds, &c.

In these observations there are many circumstances which do not seem to admit of explanation. They seem to warrant the conclusion, that the change of colour is owing to the use of the nitrat of silver, and at first suggest the idea, that the colour depends upon the actual presence of the black oxid in the skin or beneath the cuticle, produced by its reduction by the action of light and air, from its saline state, in a manner somewhat analogous to the blackening of luna cornea. But this explanation would require that the nitrat of silver should be taken up by the absorbents, and that it should be carried through the circulation unchanged, except where it was exposed on the surface of the body; neither of which suppositions can be admitted without great caution; for nitrat of silver is more acrid than many other metallic salts, which the absorbents refuse to admit, and it is easily decomposible by all animal fluids, without the intervention of the agency of light or air.

Again, the diminution of the colour in Dr Albers's case, by holding up the arms, and from other unascertained circumstances, and its increase during the period of menstruation, do not admit of explanation, on the supposition of black oxid of silver being actually deposited in the substance of the skin.

Dr Marcet gives (No. XXXVII. p. 551.) an excellent paper on the medicinal virtues of stramonium as an anodyne for allaying pain, which it seemed to do very effectually, and without inducing constipation or lethargy, in many very painful diseases, as sciatica, cancer, tic douloureux, and anomalous disorders. He used it only in the form of extract, as prepared by Mr Hudson, chemist and druggist in the Hay-Market, to whom we are indebted for the following directions for preparing it properly:

"One pound of the *seeds* of stramonium, after being well bruised, are boiled with three gallons of water down to one gallon. The decoction is strained, and the seeds are again boiled, with one gallon more of water, to two quarts. This second decoction is strained, and, being mixed with the former, the whole is allowed to stand for twelve hours. The liquor is then drawn off, free from fecula and oil, and evaporated to a proper consistence, the latter part of the evaporation being performed in a water bath. A considerable portion of oil is separated from the seeds by boiling, which is troublesome in the extract, if allowed to remain, and does not appear to add in any degree to its effect.

"The quantity of extract, yielded by one pound of seeds, is from one ounce and a half to two ounces, being liable to some variation from the state and quality of the seeds.

"An analogous extract is obtained by a process exactly similar, by substituting the whole plant, cut into small pieces, instead of the seeds; but in this case none of the oily matter, above mentioned, appears. The proportion of extract, when prepared from the whole plant, has not been ascertained."—pp. 556-7.

Eleven well engraved plates illustrate the contents of the volume.

II.

Practical Observations on the Diseases of the Urinary Organs; particularly those of the Bladder, Prostate Gland, and Urethra. Illustrated by Cases and Engravings. By John Howship, Member of the Royal College of Surgeons in London, and of the Medico-Chirurgical Society. London, 1816. 8vo, pp. 275.

From the very beautiful engraving with which Mr Howship enriched the 30th number of this Journal, and the accurate description of the malformation which it represented, our readers will be enabled to judge of this gentleman's qualifications to promote our knowledge of morbid anatomy. But to high qualifications he seems to unite zeal and industry, and his situation in the metropolis supplies him with abundant opportunities of exercising them. Besides his communications to the Transactions of the Medico-Chirurgical Society, he has lately produced two very valuable works, the first of which now lies before us.

Mr Howship's account of this is so just, that we cannot do better than borrow his own statement.

> "In the following pages I have endeavoured to bring into one general view, the symptoms and treatment of most of the diseases of the urinary organs, together with the appearances that have been found on examination of those diseases, in the various stages of their progress.
>
> "They are to be considered as forming some part of the result of my own professional experience, as they are derived almost exclusively from what I have myself seen, attended to, and noted down at the bed-side; and, consequently, many of the circumstances hereafter noticed, will be found to agree with those already adverted to by others, who have travelled before me in the same path of scientific research.
>
> "The plan of confining the following remarks almost exclusively to what has fallen under my own observation, may seem objectionable, from its conveying an idea of their affording a very incomplete view of the subject; but I have, nevertheless, given it the preference, because, however useful comprehensive works may be, they are generally more or less deficient in accuracy, from the admission of statements not sufficiently well-founded, but calculated rather to mislead than to correct the judgment of the practitioner.
>
> "For some few of the histories of disease, I have been indebted to the kindness of Mr Heaviside, as well as for the whole of the illustrations, which are selected from among the preparations in his extensive and valuable collection of diseases.
>
> "There has been less attention paid to form and arrangement than some perhaps may think right; but my principal and almost only anxiety has been, to bring forward a simple detail of facts, the object of which is, to be, if possible, in some degree useful, in a profession, the advancement of which is, in every point of view, essentially connected with the happiness of mankind; and for those defects or inaccuracies that may have escaped notice, I rely with confidence upon the indulgence of a liberal and enlightened public."—pp. 18—20.

A work of this kind does not admit of regular analysis, and when the detached cases are nearly equal in general importance, there is no principle for selection. The first, third, fifth, and seventh chapters, treat, in succession, of the diseases of the kidney, bladder, prostate gland, and urethra; and the second, fourth, sixth, and eighth, of the treatment of the same disorders; and, in the course of the work, twenty original cases are more particularly detailed.

The plates, from the author's own drawings, are well executed and truly coloured, and although only four in number, they represent several objects upon each.

The first plate contains four figures; an unusually large renal calculus, weighing four drachms and fifty-six grains; the kidney of a child laid open, shewing the effect of distention from the accumulation of urine, in consequence of a calculus formed in the kidney having been impacted in the orifice of the ureter; (this case furnishes a very good example of the distention of a secreting organ by over secretion, even causing the destruction and absorption of its secreting substance); the bladder of a child laid open to shew a calculus in it, and the appearance of the internal membrane, when labouring under irritation of the stone; and a section of the calculus, shewing the *nucleus* of uric acid, surrounded by alternate coats of the phosphats, uric acid, and phosphats.

The second plate has three figures; a very large abscess in the kidney laid open; the appearance produced in a bladder by extreme irritation; and a singular instance of a preternatural fold of the inner membrane of the urinary bladder, extending from the orifice of each ureter to the opening into the urethra in the prostate gland, forming a valve on each attempt to void the urine, which at first impeded its free exit, and at length proved fatal, with symptoms not unlike to those that attend in cases of bad stricture.

The third plate has five figures, representing a mulberry calculus and its section; a singularly large calculus weighing four ounces six drachms, voided by the natural efforts from the uthera of a female; the neck of a bladder and prostatal portion of the uthera, in which two false passages had been produced by the unskilful introduction of bougies.

The fourth plate exhibits a singular example of complicated and extensive disease, derived, in the first instance, from the throwing up an injection to cure gonorrhœa.

III.

A Practical and Historical Treatise on Consumptive Diseases, deduced from Original Observations, and collected from Authors of all ages. By THOMAS YOUNG, M.D. F.R. &L.S. Fellow of the Royal College of Physicians, and Physician to St George's Hospital. 8vo, pp. 496. London, 1815.

THIS valuable volume is divided into two parts, entitled, Practical Observations, and Medical History; the former being a practical treatise on consumption, and the latter containing a summary of every thing regarding it to be found in the writings of authors, from Hippocrates to Southey.

The practical observations treat in succession of the symptoms of hectic fever,—of decline and of consumption,—of the morbid appearances in consumption,—of the causes of consumption,—and of the treatment of consumptive diseases;—to which is subjoined, the essay on the medical effects of climates, reprinted from our author's Medical Literature. In these observations, Dr Young follows his own nosology, in which Hectic Fever constitutes a *genus*, and in this we are disposed to agree with him. Indeed, the reasons for its exclusion from that rank in Cullen's nosology have always appeared to us unsatisfactory. We shall not follow the subdivisions of this part of the work any farther. The reader will find it uniformly characterized by candour and judgment. Many of the observations acquire a particular value from the author having himself experienced an incipient attack of the disease; and we are glad to quote from him the following expression of his conviction of the powers of medicine, in checking its further progress:

> " But in consumption the prospect is far different: it is probable, that, without assistance, not one case in a thousand of the disease would recover; and, with the utmost power of art, perhaps not more than one in a hundred will be found curable. However discouraging this representation may be on the one hand, it is still some consolation, supposing it correct, to think, on the other hand, that ten times as many lives may be saved by medical treatment as without it: and we may be induced, by this statement, to argue with extreme caution, respecting the comparative value of the medicines which we may think proper to prescribe: for since the utmost, that we can expect from the operation of the most powerful remedies, is to save one out of a hundred cases of confirmed consumption, we must have witnessed the failure of any new mode of treatment in at least fifty cases, before we are fully authorized to suppose, that it

has been less successful than the most effectual remedies previously known; and even if we admit the number of curable cases to be somewhat greater than is here assumed, the general inference from the argument will not be materially altered. Nor would this mode of reasoning be superseded by the admission of Mr Bayle's opinion, that every genuine consumption is absolutely incurable; for, in the first place, he is willing to allow, that the duration of the disease may be extended, and the patient's life prolonged, almost without limit; and in the second place, the disease, which he considers as incurable, cannot be fully identified without anatomical investigation, since its most characteristic symptoms may sometimes be found united in such a manner, as to constitute a genuine consumption, in the nosological and practical sense of the term, and yet this assemblage of symptoms may be curable by appropriate remedies.

"In fact, however, notwithstanding Mr Bayle's observations, I cannot help being persuaded, that, in my own case, there was an incipient formation of tubercles, the difficulty of breathing, and hectic symptoms, which I experienced, not being intelligible on any other supposition, since there was, for a considerable time, neither cough nor expectoration; and that these tubercles must have disappeared at a subsequent period, was completely demonstrated by the restoration of the capacity of the chest, to the extent of containing seven or eight quarts of air."—pp. 51—53.

The only other quotation we shall make is on the means of distinguishing pus from mucus, in order to render a very simple mode discovered by our author generally known.

"The essential characteristic of pus is afforded by the globules which it contains, and which were first observed and described by Sir Everard Home. Dr Pearson has expressed a suspicion that they may be formed of the red particles of the blood, while the remaining parts of the pus differ very little, in their chemical nature, from the lymph and serum; and I have confirmed the conjecture, by observing, that the magnitude of the globules of pus is not sensibly different, when ascertained by the most accurate tests, from that of the corpuscles of the blood, reduced to a round form by the addition of water or otherwise; while the globules found in other animal fluids, for instance, in milk, are of totally different dimensions. Mr Hunter found, that pure pus was inspissated by muriate of ammonia; but Dr Pearson observes, that this test is never applicable to any expectorated matter; nor has any other chemical process been indicated, by which we can distinguish the presence of pus with accuracy. There is, however, a very simple and certain optical criterion, dependent on the presence of globules, while the colour indicates that there is no mixture of blood. If we put a small quantity of the substance to be examined, between two pieces of plate glass, which may be carried in the pocket for the purpose, and, holding it near the eye, look through it at a distant candle, we shall observe the appearance, even in the day time, of a bright circular corona of colours, of which the candle is the centre; a red area, surrounded by a circle of green, and this again by another of red; the colours being so much the brighter, as the globules are more numerous and more equable. If the substance be simply mucous, there will be no rings of colours; although sometimes there is a sufficient mixture of heterogeneous particles, even in mucus, to cause the appearance of a reddish area only, about the candle."—pp. 26, 27.

The second part of our author's production, which occupies more than three-fourths of the volume, admits of no analysis or abridgment, but stands unrivalled in the literary history of medicine, for its accuracy and utility. It is not a mere catalogue of dissertations or titles of books, copied from preceding compilers for the twentieth time, but is a real condensation or selection from the original authors, of every fact worth preserving on the subject. It thus almost supersedes the necessity of perusing any of the preceding authors, and is, in itself, a complete library in regard to consumption.

IV.

Observations on the Harveian Doctrine of the Circulation of the Blood. By GEORGE KERR. 12mo, pp. 100. Lond. 1816.

Observations on the Harveian Doctrine of the Circulation of the Blood: in reply to those lately adduced by George Kerr, Esq. By ALEXANDER EWING, M.D. Member of the Royal Physical Society, Edinburgh. 12mo, pp. 251. London, 1817.

IT is an excellent practice in some of the societies instituted for the education of young lawyers, to appoint members to maintain the opposite sides of the question to be discussed, without regard to their own opinions on the subject. There are many advantages attending this practice, such as, its teaching them to argue plausibly, contrary to their own conviction,—a task very often imposed upon them in the future exercise of their profession; to examine with severity opinions which at first seem unobjectionable; and to consider what may be said in favour of those which would otherwise be rejected without hesitation. Nay, it sometimes happens, that the opinion which at first was supported officially and *mala fide*, ultimately triumphs, and carries conviction with it, in the opinion of its advocate. At any rate, this practice ensures a free and fair examination of every point that is fixed upon for discussion. From the publications before us, we might almost infer, that there is in Aberdeen a society of this kind for investigating physiological questions, and that Mr Kerr has been appointed to argue against, and Dr Ewing in favour of, Harvey's doctrine of the circulation of the blood. Dr Ewing arguing, from conviction, on the popular side of the question, in favour of what he had been taught as an indubitable truth, had comparatively an easy duty to discharge. Mr Kerr's undertaking was more arduous; but it could not have been accomplished with greater skill and ability, nor could any one have been more successful in making the worse appear the better reason. We shall not attempt to follow him in all his turnings and windings,—to point out the art with which he states the matter at issue with apparent candour, and then evades the discussion by turning aside to refute some position unconnected with it,—and to expose the misrepresentations or errors upon which many of his arguments rest, and the artful sophistry with which he manages the argument. At the same time we believe, that Mr Kerr has at last convinced himself, and mistakes the spurious child of his own imagination for the legitimate offspring of truth.

In the epistle dedicatory to Mr Abernethy, we have a striking specimen of the dexterity with which Mr Kerr takes advantage of every circumstance which ingenuity can render suitable to his purpose, and of his apparently candid, but really sophistical, manner of conducting the controversy. It appears that Mr Kerr had submitted part of his observations in manuscript to several gentlemen, among whom was Mr Abernethy, and, from his reply, couched in language of civility, Mr Kerr wishes it to be understood, that, although Mr Abernethy was not convinced by his arguments, he admitted the possibility of their being well-founded, and was conscious of the power of early prejudice in preventing him from judging fairly of the merits of the question; and Mr Kerr is not without hopes that, "after reflection and *due* investigation, Mr Abernethy may still become a convert." But others, less bigotted than Mr Abernethy, to the faith in which they were educated, have been convinced.

> "My objections I have stated to many of my medical friends, some of whom agree with me in thinking them insuperable—some abide by Harvey's doctrine, but say nothing pointed against the facts

I have stated, contenting themselves with the repetition of assumptions and conjectures as to how the circulation *must* be carried on—and a great majority tell me, that they never suspected any fallacy in the generally received opinions, and that they remain in doubt. It is, however, a question which every man of liberal education may enter upon, and decide for himself; and I cannot help thinking, that our profession would have been, at the present day, more respectable, had the attention of literary men been more closely directed to our proceedings; for, as we neither have secrets, nor pretend to magic, quackery could not have prevailed so much, had it not been for the negligence and consequent ignorance of those who ought, in some measure, to have been censors.

"The medical men retired from practice, and scholars, not of the profession, to whom I have shewn my observations, are nearly unanimous in assuring me that they believe them well founded; but in many of my professional brethren there has appeared a *great reluctance to enter upon the discussion, amounting to a seeming dread of conviction.* Indeed, in many cases, it might be a serious affair for a practitioner to declare himself a schismatic from the Catholic physiological persuasion."—pp. iv, v.

In the name of our brethren *not* retired from practice, we protest against this gross calumny, which represents the profession as wilfully shutting their eyes against the light of truth, from interested motives. It is a mere *ruse de guerre*, intended to influence some timid individuals, who dread the imputation of illiberality, and perhaps some flighty beings who wish to be considered as superior to professional prejudices. In fact, we have a better opinion of the honesty of medical practitioners, than to imagine that their professional opinions are influenced by interested motives, and we may triumphantly refer to the zeal with which they patronized the introduction of vaccination. Besides, a change of opinion in regard to the circulation, would not in any way affect the interest of actual practitioners. The appeal to scholars upon such a point is absurd and insulting. It is appealing from the learned to the ignorant,—besides amounting to an assertion that medical practitioners are not scholars. Does the proof of Erasistratus's doctrines rest upon a critical knowledge of the Greek language greater than medical practitioners possess or can acquire; or, are literary men alone able to reason accurately and profoundly upon the facts with which, after all, they must be furnished by professional men?

Mr Kerr's next argument with Mr Abernethy is founded in misrepresentation.

"You will admit that, since the time of Harvey, our physiology has been almost as changeable as the cut of our clothes; and Dr William Hunter used to say, that no physiologist could leave a repu-

> tation behind him that would outlive him half a century. 'When they cease from their labours,' said he, 'their labours will be buried along with them. There never was a man more followed and admired in physiology than Boerhaave. I remember the veneration in which he was held; and now, in the space of forty years, his physiology is—it shocks me to think of the light in which it appears.' This instability of physiological and medical theory may, I think, be fairly traced to the doctrine of Harvey, for, although before his time physiologists differed in some points, in the great outlines they were perfectly agreed."—pp. vi, vii.

It is not correct that, before the time of Harvey, physiologists were perfectly agreed in the great outlines of their science, nor had the introduction of Harvey's doctrine any influence in rendering our physiological opinions unsteady. On the contrary, we find that Erasistratus's doctrine was combated by Galen, and that Harvey's doctrine of the circulation of the blood has been universally received, from its promulgation up to the present time.

We cannot sufficiently reprobate the mode of reasoning next employed by Mr Kerr,—the endeavouring to connect the Harveian doctrine with irreligion.

> "The ancient physiologists believed the vital spirit of man to be something ætherial, and of a superior order to mere matter perceptible by our senses. Harvey, who reduces man to a hydraulic machine, laughs at the idea of any thing more divine than the blood in the composition of man; and very positively denies the existence of vital spirits, because he had never seen them. He argues, that these vital spirits must necessarily be colder than the blood, because they are said to be derived from air and vapour—a notion which it is unnecessary seriously to refute at the present day; and, upon the whole, his ideas of the animal economy he declares to be bounded by objects of sense. From this doctrine many, of late years, have been led to derive materialism, and the extinction of the soul by death; while, on the other hand, the ancient physiologists believed and taught that the soul is immortal, being in its nature indestructible, and that it must necessarily survive the body."—pp. vii, viii.

It always seems to us a proof of the weakness of an opinion upon physics, when religion is dragged into the controversy; but what is worse, it borders on impiety, by degrading religion for a very contemptible end. By this abuse some men, who cannot at once reconcile an opinion founded, as they think, upon physical truth and common sense, with their religion, may be rendered sceptical; while with others, the same causes will lead to blind superstition. These bad consequences are the more to be lamented, as there is scarcely any opinion in physics which does not admit of being reconciled with any religious belief whatever. In the present instance, Mr Kerr, by the help of a long string of quotations from the heathen poets and philosophers, wishes to impress us with the belief that, "with regard to man, they entertained very elevated notions of his origin, susceptibility of improvement, and the future state of the good after death," as well as the highest veneration for the Deity; while Harvey was a scoffer at religion, and, by his doctrines, led to the propagation of materialism. But surely there is no connection between materialism and the arteries being filled with blood, or between the immortality of the soul and their being distended with vital spirits; on the contrary, Mr Kerr, who accuses Harvey of materialism, because he denies the existence of the vital spirits, is himself the materialist, since he contends that the vital spirits, or soul, for his argument requires their identity, can be confined in corporeal tubes. In representing Harvey as a scoffer at religion, Mr Kerr either betrays gross ignorance of his life and writings, or is guilty of wilful slander. In refutation of it, we quote with satisfaction the concluding paragraph of Harvey's life, published by the Royal College of Physicians of London: *

> "Quid de causa rerum omnium efficiente prima censuerit, nam HARVEII pietas minime prætoreunda est, quanta veneratione atque admiratione supremum Numen suspexerit, non uno loco verbis gravissimis profitetur. Cuncta Dei omnipotentis manu facta, ejusdemque providentia conservata dicit, nec tamen lege generali, sed Numine per universum rerum naturam infuso, res singulas administrari: nec veretur, ut minutus ille apud Ciceronem philosophus, divinam majestatem ad apium formicarumque perfectionem deducere; siquidem Deus Maximus Omnipotensque in rebus minimis, quæ non sine singulari providentia atque sapientia fiunt, clarissime conspicitur. Cuncta animalia, patre atque creatore Deo presente, facta dicit, nec quidquam sine Numine fieri posse putat; nihil a philosopho, nihil ab homine Christiano, de his rebus aut gravius aut verius dici potest."

But Mr Kerr is not yet done with his inferences from Harvey's declaring that he had not been able to see the vital spirits; for, in Mr Kerr's opinion, it clearly proves that Harvey considered it ridiculous to attend particularly, as, according to him, the ancients did in every case, to the state of the patient's mind, (*i. e.* animal spirits,) or to attempt to trace the origin of any disease to affections of the mind; and that he denied,

> "that a diseased body may disorder, impede, or altogether suspend, the operations of the mind—that intemperance debases man, and pre-

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* Gulielmi Harveii, opera omnia, a Collegio Medicorum Londinensi edita, 1766, 4to, Londini, p. xxxviii.

> vents the free exercise of the reasoning faculty, presenting an insurmountable obstacle to that improvement which ought to prepare the soul for a more perfect and dignified state of existence."—p. xvi.

The last accusation against Harvey, contained in this memorable epistle, is, that he brought the darling ancients of Mr Kerr into contempt, and is equally unfounded with the others.

> "The medical authors of antiquity we hold convicted of neglect, nay even of folly, upon the authority of a man whose writings bear evidence that he was unacquainted with theirs, who, from appearances, obvious to the meanest capacity, infers gross ignorance in the most learned men of the most learned ages."—p. xix.
>
> "In poetry, sculpture, architecture—in every thing, we admit their superiority, (as I have elsewhere observed,) with the exception of medical science, including Physiology, and *Scotch Metaphysics;* for my countrymen declare that they have, of late, very much improved upon Aristotle."—p. xviii.
>
> "The human mind is not always progressive in knowledge; we have dark ages in which error prevails, and the most absurd speculations are received as founded in truth."—p. xvi.

But the defence of the circulation of the blood we readily resign to Dr Ewing, who examines and refutes Mr Kerr's arguments in detail. In justice to Dr Ewing, we shall make a single quotation from his work, to exemplify the manner of his conducting this controversy:

> "These controversies terminated in so complete a demonstration of Harvey's doctrine, as to shew the weakness and absurdity of all attempts to subvert it. Unless, indeed, ages of darkness shall again overcloud the world, and learning and science be erased from the memory of man, it must remain unshaken to the end of time. Even if the dark ages of barbarism and ignorance should return, and men should be left, as formerly, to grope their way through mists of doubt and error; the idle theories which they might form, like those dreams and reveries which preceded Harvey's true doctrine, would vanish before the growing light of truth, till the knowledge of the circulation of the blood would again be firmly established, as it is in our times.
>
> "Had the flow of blood,' says our author, 'from a wounded artery, afforded any proof of the circulation, that circulation must have been known from all antiquity; for arteriotomy was practised as a remedy from the earliest times; and the effects of the wounds of arteries in battle must have been observed from the time that battles were fought, as well as from numerous accidents occurring in civil life. Neither the *structure* of the parts, nor the flow of blood, had escaped the observation of the ancients; but they reasoned *very differently* from Harvey concerning these appearances, and, in *my opinion, more correctly.*'

"Though 'the *flow* of *blood* from a *wounded artery*' must have been familiar to the ancients, as well as to the moderns, from the causes assigned, and though it certainly does afford evidence and concurrent proof of the circulation, it does not appear to me at all to follow, that 'that circulation *must* have been *known* from *all antiquity*.' For it might as well be asserted, that the true or Newtonian theory of gravitation, and of the motions of the heavenly bodies, 'must have been known from all antiquity;' because, in the earliest ages, men had an opportunity of contemplating the sun, and the moon, and the stars, every day of their lives.'—pp. 230—233.

V.

Remarks on Arsenic, considered as a Poison and a Medicine; to which are added, five cases of recovery from the poisonous effects of arsenic. Together with the tests so successfully employed for detecting the white metallic oxide; in which those satisfactory methods, peculiar to Mr Hume, were principally adopted, confirmed, and compared with others formerly in use. By JOHN MARSHALL, Member of the Royal College of Surgeons in London, and Apothecary to his Royal Highness the Duke of Gloucester's Household, &c. &c. 8vo. pp. 163. London, 1817.

MR TURNER, Mr Robert T. and Mrs R. T. in the 7th month of pregnancy, partook at dinner, on Tuesday, March 21, 1815, about 4 P. M., of some yeast dumplings. Mr R. Turner ate a dumpling and a half. They seem not to have been sensible of any thing unusual in the dumplings, but soon became ill. We are told, that, at the commencement of the operation of the arsenic on Mr R. T. his father was alarmed at the alteration in his appearance; the countenance was of a complete yellow cast, and the features altered and contracted, so as to resemble an aged man. Soon after dinner, a medical gentleman, Mr Ogilvy, was sent for, who administered to each of them a full dose of castor oil, and gave sugar and water plentifully, occasionally mixed with milk. We are not informed when the cook-maid, Eliza Fenning, became ill, or whether she had eaten of the yeast dumplings.

Mr Gadsden, Mr Turner's apprentice, dined on beefsteak-pye at two o'clock. About an hour and a half after finishing his dinner, he ate about the size of a walnut only of the remains of the yeast dumplings, and would have eaten more, but was forbid by the cook-maid. In almost an hour and a half, he became sick, and vomited twice, then felt quite well, and went, on foot, for Mrs Turner senior, from Chancery-Lane to Vauxhall, a distance of three or four miles, and not until he arrived there was he in the least aware of being poisoned; but he then became seriously ill, with an excruciating pain and a burning heat in the stomach, and felt so much alarmed, that he thought he would have died. As soon as seated in the coach to return, he began to vomit, and continued to do so, almost without intermission, the whole of the way home.

About half past eight, the patients were seen by Mr Marshall, who thus describes the state in which he found them:

> "On entering the house I first saw Eliza Fenning, the cook, lying on the stairs, apparently in great agony, and complaining of a burning pain in the stomach, with violent reaching, headach, and great thirst. I directed her to drink some milk and water, and to be immediately conveyed to her bed; at the same time observing, that I would see her again as soon as possible, after having visited the rest of the family, who, I was then informed in the most anxious manner, by Mrs Turner senior, 'were all four of them much worse than the cook.' My attention was then directed to Mr Robert Turner, who appeared to be nearly *in articulo mortis;* his face, which had been swollen, having assumed the appearance of the true *facies hippocratica*, my apprehensions were considerable for his preservation. On examining the contents of the utensils in which he had vomited, a fluid was perceived of a yellowish and greenish colour, and in two of them stercoraceous matter; the pulse was gone, his voice faint and tremulous, and he pointed to the abdomen in great agony. On examination, I discovered a very remarkable irregularity of surface, occasioned by the spasmodic contractions of the muscles of the abdomen, and even of the viscera; this unevenness extended from the epigastric region to the *pubis*, and to the right and left *hypochondrium;* and the excruciating pain was relieved, for a short time, by rubbing the abdomen with a piece of hot flannel and laudanum."——"He complained of extreme faintness and dreadful sickness. Mr R. T. had been violently purged; and, on examining the alvine secretions, the singularity of their appearance excited great surprise; they were all of a bright homogeneous green colour, like paint, and strongly resembled the green colour produced from a solution of the arsenic by one of Mr Hume's tests, the ammoniaco-sulphate of copper, which will afterwards be more fully described. Each effort of vomiting and purging was preceded and followed by these painful gripings and spasmodic contractions of the abdominal muscles. Mr R. T. complained of great heat in the stomach, which the patient compared to a furnace, or red hot irons, which sensation

commenced at the tongue, and was felt throughout the course of the *œsophagus* to the *cardia*, or upper orifice of the stomach; insatiable thirst, violent headach, the eyes impatient of light, but the pupils sensible, and the extremities cold. The patient attempted, in this dreadful state, to get out of bed, to walk to the night table; he was directly seized with vertigo, dimness of sight, and palpitation of the heart; he fell down, and went off into an epileptic fit; he was assisted on the bed, and in a few minutes recovered from the fit.

"Mrs Robert Turner had great pain and burning heat in the stomach, headach, immoderate thirst, vomiting and purging, with olive green alvine discharges, tension of the abdomen, the face swollen, cold chills alternating with flushings of heat; and light was painful to the eyes. Mrs R. Turner's peculiar situation made me apprehensive of a miscarriage, in consequence of frequent bearing pains more or less constant in the loins; and, independently of these distressing symptoms, her mind was additionally agitated by the alarming state of her husband, who was lying by her side.——

"I next saw Mr Turner senior, with symptoms, in many respects, similar, though not quite so importunate as in the two foregoing cases. Mr T. had the burning sensation in the stomach, vomiting, inordinate thirst, headach, the face swollen, tension of the abdomen; the purgative symptom had been more moderate. Mr T. did not complain of light affecting the eyes; and the countenance was flushed, particularly on the upper part of the cheeks."—pp. 11—15.

Mr Gadsden complained of a burning heat in the stomach, much nausea and vomiting, and severe gripings, with purging; extreme faintness, palpitation of the heart, headach, and trembling of the right arm and right lower extremity. He was also affected with intolerance of light and strangury, and his feces were of an olive green colour.

Mr Ogilvy and Mr Marshall, in consultation,

"resolved to persist in the purgative plan, and gave to each patient another full dose of castor oil, on two table spoonfuls of milk, and every four hours a solution of the *magnesiæ sulphas* with manna, in mint water; this dose to be alternated every two hours with the saline draught in the state of effervescence, letting the alkali predominate four grains to each dose, with the intention of neutralizing any possible remains of the arsenic, and relieving the disposition to vomit; and we further determined on persisting in the purgative system, until a more natural colour was effected in the alvine secretions. The patients were allowed to drink frequently, and in small quantities, milk, soda water with or without milk, and mutton broth."—"The thirst of each patient was so urgent, that they would readily have drank quarts, had they been permitted; and had we yielded to their request, the vomiting would have been at this time unnecessarily excited, and Mr O. and myself were apprehensive it might tend to increase the inflammation on the villous coat of the stomach, and aug-ment the symptoms of debility. The thirst was somewhat allayed by frequently washing the mouth with cold water."—pp. 16—18.

Eliza Fenning most obstinately refused all remedies, both on Tuesday night and Wednesday morning. She was then much better, but her face was flushed and swollen, and she still complained of burning pain in the stomach, headach, and dizziness. She was removed to prison.

"On the following morning, March 22d, I visited the patients, who had all passed a restless night; the vomiting in each had greatly abated, the pain in the stomach was still violent, which they all compared to a furnace, or hot irons; the alvine discharges were changing to a proper colour, but intermixed with streaks of green, and highly offensive; the skin hot and dry, the pulse quick, varying in each case from 100 to 130, great thirst, and violent headach; their tongues white but moist; Mr and Mrs Robert Turner, and Mr Gadsden, could not endure a strong light.

"The supersaturated saline draught *in actu effervescentiæ*, with the addition of manna, was ordered to be continued, and the purgative mixture to be omitted.

"Mrs R. Turner's pulse was 130; this rapid circulation was accompanied with constant sensations of fainting; but the bearing pains, with the pain in the loins, had somewhat abated.

"Mr Gadsden appeared this morning to be the most afflicted; he had been seized with four epileptic fits in the course of the night, preceded by a violent palpitation of the heart, accompanied with a peculiar tremulous action of the right arm, and lower extremity; a considerable degree of symptomatic fever, insatiable thirst, a white but moist tongue, the face flushed, the respiration hurried, pulse 126, irregular and contracted, frequent gripings in the bowels, and spasmodic twitchings in the muscles of the chest and abdomen.

"Mr Robert Turner, in the early part of the morning, had another attack of epilepsy; the symptomatic fever ran high, the pulse 120; he complained of spasmodic twitchings about the chest and abdomen, palpitation of the heart, great languor, accompanied with a constant sensation of fainting, tongue white, but not dry, occasional chills, followed by an increase of heat, headach, and vertigo. A dose of the purgative mixture was administered, and the same medicine as on the preceding day continued.

"Mr Turner senior appeared much better; the pulse 90, skin temperate, tongue moist and cleaner; the vomiting had subsided, but the stomach was in great pain; he complained of extreme lassitude; the face was flushed, and he had slept about four hours.

"The faces of all the four patients were swollen, with a fixed redness, more or less, under the eyes and on the cheek-bones; they had vomited two or three times in the course of the night, by drinking too copious a draught of the diluents recommended over night, and each complained of the tongue and lips being sore and swollen.

"In the evening the febrile symptoms had a little abated, the pain in the stomach was intense, occasionally remitting and again returning with increased violence, with nausea, and vomiting, much pain in the head, considerable thirst, and the bowels were open in each of the patients.

" Mr Turner senior was better in many respects, and less oppressed by languor.

" The saline draught with manna was to be continued, and the addition of camphire mixture.

" Thursday the 23d, Mr Robert Turner had slept three hours during the night, the skin was moist and more temperate, the tongue less coated, not dry, but sore and swollen, the burning heat in the stomach rather less violent, and he expressed a degree of hunger; the pulse 98, spasmodic twitches in the arms and legs, with a cold sensation in the latter.

" Mr Gadsden had much fever, the respiration hurried, great thirst, violent and incessant palpitation of the heart, the fits had recurred twice in the night, he had had no sound sleep; if he went into a doze, he awoke suddenly, and much agitated; the pulse 120, spasmodic twitches, with tremor in the right arm and lower extremity, violent headach, and the eyes painfully affected by light; constant vertigo, which was increased if he attempted to sit up in bed, or upon the slightest exertion. A wine glass full of camphire mixture was ordered to be taken frequently. The patient received so much relief from this, that he asked for it often with eagerness. The saline effervescing draught, with manna and camphire mixture, was repeated every four hours.

" Mrs Robert Turner had slept three hours in the course of the night; pain in the loins constant, with occasional bearing down of the womb; the thirst rather less urgent, the pulse 110, headach, vertigo, great intolerance to light, the tongue white and moist, the skin hot, frequent palpitations of the heart, and a constant sensation of fainting; a numbness extending from the right side down to the foot; the burning sensation of the stomach was excited and increased by the motion of the child *in utero;* the face was flushed and swollen, and the tongue and lips sore, which extended along the course of the *œsophagus.*

" The same medicine as yesterday was continued, and a wine glass full of camphire mixture taken frequently when faint.

" Mr Turner was considerably better, the pain in the stomach occasionally troublesome, the appetite returning, the face less swollen, but flushed and red under the eyes and on the cheek-bones, extending towards the ears.

" Friday the 24th, the febrile symptoms had considerably subsided in each of the patients, and they had passed a more tranquil night. They complained of a variety of singular nervous affections, tingling and burning sensations in the hands and feet, in Mr R. Turner beginning at the extremity of the fingers, and gradually creeping to the shoulders; sometimes one foot, and at others both affected with a burning feel, commencing at the toes, and gradually rising above the ankle joint: palpitation of the heart, great depression of the spirits, with a perpetual sensation of swooning, and frequent twitchings of the muscles of the chest and abdomen, and of the upper and lower extremities.

"Mr Gadsden had experienced in the night only one attack of the epileptic fit, and had slept three or four hours towards the morning; the pulse 100, the breathing less hurried and more natural. The vomiting in each patient had wholly subsided, but they all endured the burning feel in the stomach.

"Mrs Robert Turner complained of violent headach, and to light she had still a great objection, as it, immediately on accession, increased the headach; at times the heart palpitated strongly, the thirst was considerable, the pulse 100, the tongue less charged and moist, the child *in utero* moved with vigour, and whenever this occurred, the pain in the stomach was increased, with nausea.

"Mr Turner senior was nearly recovered.

"The same medicine continued, with the camphire mixture.

"In the evening they were all four evidently in a progressive state of convalescence; the febrile symptoms diminished, the pulse slower, less tremulous and contracted, more natural and open in the beat: the pulse in Mrs R. Turner continued at or about 100 for a fortnight afterwards."—pp. 16—24.

"On the next morning, Saturday the 25th, the symptomatic fever in each patient had wholly subsided, their tongues were cleaner, and the nervous symptoms much the same as on the preceding day; the appetite returning, and Mr R. T. complained of hunger more than the rest. Well boiled vegetables, puddings, eggs, and milk, were recommended, and he was enjoined most carefully to abstain from animal food and fermented liquors.

"Mr Gadsden had a relapse of the fit shortly after I had left him over night, which had been preceded by palpitation of the heart, and the tremulous agitation of the right arm and lower extremity; the fit lasted near two hours. They all still complained of the burning heat in the stomach: this symptom was constant and more severe in Mrs R. Turner, who had it without intermission: this was attributed to her peculiar situation, the viscera pressing more constantly upon the tender state of the coats of the stomach; and Mrs R. T. felt, for many days afterwards, an intolerance of light, accompanied with headach; she persevered in the recumbent position for a fortnight afterwards, which relieved the pain in the loins, and kept off, or lessened, the disposition to the bearing pains of the gravid uterus.

"On the following day, Sunday the 26th, they were all convalescent, except Mr Robert Turner, who had gone contrary to my directions, by eating at dinner on the preceding day a free portion of animal food, and drinking a tumbler of porter, which caused a slight relapse of the fever; and he endured so much pain in the stomach, that he readily promised not to touch animal food or porter again, until fully permitted. Mr R. T. had passed a restless night, with much thirst, and was again attacked with the spasmodic twitchings in the chest and upper and lower extremities; he took a dose of the cathartic mixture, and, by afterwards living on a low diet, and then strictly adhering to my directions, having suffered so severely by this transgression, this patient was soon relieved from the exacerbation of the symptoms."—p. 26, 28.

"Mr Gadsden experienced an epileptic fit at eight o'clock the preceding night, and it returned daily and periodically, about the same hour every evening, for a fortnight afterwards; the fit generally lasted near two hours, and he required, from the violence of his struggles, the assistance of several persons to hold him whilst the epilepsy continued. On recovering he looked wild, forgot where he was, and talked incoherently; and, as he gradually emerged from this state, complained of extreme languor, with great prostration of strength. Towards the latter end of the second week the fit became shorter, and less severe, and he sooner recovered when out of it; and at the expiration of a fortnight from the first effects of the poison, he enjoyed an interval of seven or eight days without a relapse; but they again returned, with the same or even greater degrees of violence, and it is necessary to state, that Mr G. has been afflicted with the fits up to the present time; he was then about seventeen years of age, appeared to have outgrown his strength, possesses very delicate stamina, and serious apprehensions are still entertained of the result, as the fits hitherto seem not in the least to yield to the remedies that have been employed. I attended Mr G. about three weeks, but he was obliged to leave Mr Turner's office, and return to his parents, in consequence of the frequency of the relapse of these fits.

"On the 30th Mr R. Turner complained of a very singular affection in the upper and lower extremities; the arms were several times in the course of the day seized with a numbness and prickling feeling, accompanied with a sense of great weight, like what is commonly called the part being *asleep;* and this symptom continued daily, more or less frequently, for six weeks, but, upon raising the arms in an upright position, it immediately subsided. The same feeling almost as constantly attacked the legs, but occasionally with, and sometimes without, the corresponding affections of the arms; the legs were some minutes longer affected, by reason of his not being able, as he himself observed, to place them in the same position as the arms."—pp. 29—31.

"Mr and Mrs R. T. and Mr G. for many weeks afterwards, in attempting to reach an object by extending either arm, found the fore-arm suddenly contract towards the chest, causing them frequently to miss their aim. This may be considered as a very peculiar and uncommon symptom.

"Mr T. senior, for some time afterwards, had daily attacks of a burning sensation in one or both feet.

"It is curious to remark, that none of the patients complained, or had the slightest sensation, of the itching of the skin,—a symptom particularly observed by Dr Orfila in his general system of Toxicology, and also by Dr Roget in his case of recovery from the effects of arsenic. Mrs R. T. did not even complain of such a sensation, although she experienced an entire change of the cuticle."—p. 119.

Mr Gadsden went to Cheltenham for some time, and returned apparently greatly improved in his general health, and the fits having left him about three weeks, he resumed his situation in Mr Turner's office; but he relapsed, and, three months subsequent to the commencement of the attack, they again returned, at least three or four times in 48 hours. For some minutes, his sensations and distress of countenance generally indicate their approach, and his health and strength suffered materially. He was again recommended to change the air, from which he derived considerable benefit; but although a period of two years has elapsed since the first attack, he is still subject to frequent and severe recurrences of this frightful disease.

Such are all the material facts in these singular cases, as detailed by Mr Marshall, with some omissions and transpositions. There can be no doubt, that the symptoms were owing to arsenic having been mixed with the yeast dumplings, as it was present in them in so palpable a form, and in such quantity, that white opaque particles were perceived pretty thickly distributed throughout the mass, which was conjectured to be arsenic; and next morning Mr Marshall obtained from an earthen pan in which the yeast dumplings had been kneaded, more than half a tea-spoonful of white arsenic, whose identity was ascertained by Mr Hume of Long-Acre.

We regret that we cannot here terminate our notice of this work. But Mr Marshall has not contented himself with being the historian of a curious case which occurred to him, but he has been ill advised enough to come forward, as a man of science, to instruct others, and to expose his incapacity in every respect.

We do not doubt the general fidelity of his narrative, but we suspect that the severity of the symptoms is exaggerated, not from any desire to mislead, but from mere turgidity of style, and misapplication of words. Of this there are examples enough in the quotations we have already made. We add the following, on account of its containing a description of some of the early symptoms which we have not yet noticed, and because it justifies our criticism.

> " Mr and Mrs R. Turner compared the sensation of the stomach to a ball of red hot iron, with rays of heat emerging in every direction, as from a common centre, and producing a sense of dragging, as it were, from its great weight. Shortly after being taken ill, they became

so extremely flushed and heated, that they opened the window for air, the current of which, instead of affording relief, increased the evil so insufferably, as if by fanning the flame, that they were obliged to shut it down. They lost the entire skin of their tongues a short time after they had taken the poison. In Mrs R. Turner the whole surface of the cuticle of the body peeled off by degress, in furfuraceous scales."—pp. 43-4.

These comparisons are quite misapplied, and, we strongly suspect, were not originally made by, but suggested to, the patients by some person who had heard of radiant heat, and knew something of combustion, and therefore cannot be received as the genuine description of their sensations. It is possible that they felt a burning heat and sense of weight in the stomach, and that, having opened the window in hopes that the air would relieve them, they were disappointed, and, amidst their distress, thought it rather aggravated their sufferings; but the air certainly did not increase the actual sensation of heat, nor does the stomach possess the sense of touch so as to furnish any sensation which would suggest the idea of rays, and that to two individuals. The loss of the entire skin of their tongues a short time after they had taken the poison, is also a mistake; for arsenic does not directly excoriate the mouth when swallowed; and a short time, although we are left to guess whether it was some minutes or hours, is not sufficient for that desquamation which is sometimes a secondary effect of arsenic. If any excoriation of the tongue took place, it probably arose from the acrimony of bile, or other matters vomited.

But Mr Marshall is very fond of comparisons, and easily led into error by them. He describes the stools of Mr R. Turner, on the first days, as strongly resembling the green colour produced from a solution of arsenic, by one of Mr Hume's tests. This may be correct in point of fact, but it is an after-thought, as it appears he then was unacquainted with the test of arsenic alluded to; and, unfortunately, it has given rise to a piece of bad theory, which it is necessary to destroy, as it leads to a practical evil. Mr Marshall actually supposes, that the green colour was owing to the presence of arsenic in the stools, and favours us with a set of original experiments with arsenic upon human bile, which only prove that he is incapable of conducting a chemical experiment of such delicacy. This, however, is of no importance, as chemists will not be misled by him; but when he points out the green colour of the stools as one of the symptoms characteristic of the presence and effects of white arsenic, when accompanied with other corroborating and concomitant symptoms, p. 42, we fear he may mislead other practitioners not better informed than himself. It is sufficient to remind our readers, that green stools are no unfrequent occurrence when no arsenic has been taken, and that when arsenic has been taken, green stools have been rarely observed.

The same rashness in drawing conclusions, and inattention in making observations, will account for Mr Marshall's assertion, that he found stercoraceous matter in two of the utensils containing the matter vomited by Mr R. Turner before his arrival, that is, within four hours after having swallowed the poison. We are satisfied that it was either *not* stercoraceous matter, or was not *vomited*. Not only in no recorded case of the effects of arsenic, from the slightest to the greatest, is there any notice of stercoraceous vomiting, but the effects of arsenic, even in large doses, are at first comparatively slight, and increase in severity. Besides, the peristaltic motion of the intestines was never inverted in Mr R. T., as the motion through his bowels continued free during the whole of his illness.

We fear there is also some exaggeration in the description of the nervous symptoms.

> "Mr and Mrs R. T. and Mr G. for many weeks afterwards, in attempting to reach an object by extending either arm, found the fore-arm suddenly contract towards the chest, causing them frequently to miss their aim. This may be considered as a very peculiar and uncommon symptom."—p. 119.

Peculiar and uncommon indeed, because, in the course of our reading, we recollect nothing like it. Had it occurred in one of Mr Marshall's patients only, we should have made no remark; but that three of them should be so affected, makes us refer the symptoms to the imagination of Mr Marshall or of his patients.

Mr Marshall ascribes the recovery of these cases to the treatment.

> "The causes of recovery are fully explained; and that the measures which were speedily adopted and vigorously pursued, had a great share in the restoration of the patients, is most evident: for, had they been left to the sole operation and effects of the poisonous mineral, there can be no doubt, after an attentive perusal of the cases, that three at least out of five patients would have fallen a sacrifice."—pp. 6, 7.

We conscientiously believe, that the patients would have recovered as perfectly, if they had been left to themselves, and permitted to drink the quarts of fluid they thirsted for. The cure was performed, not by Messrs Ogilvy and Marshall, but by nature. In fact, with the exception of Mr R. T. the cases were not severe. Eliza Fenning would not take any medicines, and yet recovered. Mr Turner senior was very slightly affected. The epilepsy of Mr Gadsden had no further connection with the arsenic than what arose from the impression made upon his mind. The danger of Mrs R. T. arose from her situation; and, since the vomiting, purging, and agitation, were not sufficiently severe to cause abortion, her pregnant state had no effect on the ultimate result of her case. Mr R. Turner suffered the most; but even in him, the symptoms were not more alarming than they must be in every case where we know that a considerable quantity of poison is swallowed. An explanation of the cause which rendered these cases so slight in comparison with the quantity of arsenic taken into the stomach, may be discovered in the following turgid sentence:

> "The poisonous mineral oxide, being enveloped in this tenacious aliment of heavy dough, it no sooner excited spontaneous reachings, than each of those early efforts dislodged from the stomach many grains of the arsenic that never came in contact, it is reasonable to suppose, with the villous coat of that vital organ, and which most likely were still embodied in undigested portions of the dumplings, notwithstanding the act of mastication must have greatly augmented the superficies of a given quantity, and thereby facilitated the process of solution, by the active powers of digestion."—p. 37.

Before we conclude, we must advert to the doctrines here laid down, concerning the detection of arsenic in suspected substances, lest they should fall into the hands of persons more ignorant of the subject than Mr Marshall himself.

> " Having at that time no other convenient apparatus, I proved it (the suspected substance) to be so (arsenic) incontrovertibly, by the following trite experiment; which, independently of the symptoms, afforded a double analytical test of the dumplings having contained a large proportion of the poisonous mineral. One of the slices of the yeast dumpling was put on a polished halfpenny, and held over the flame of a candle on the blade of a knife, and thus reduced to a cinder; it gave out most unequivocally the garlic smell, which Mr Ogilvy and Mr Abbot, who were also present, particularly observed. On allowing the coin to cool, the upper surface exhibited a bright silvery whiteness, occasioned by the condensed fumes of the arsenic. The knives were then examined which had been used at dinner; they were so very deeply tarnished that an inquiry was made if any vinegar had been used in the sauce, and it was answered in the negative. However, by the above crude experiment, a much more satisfactory and positive proof was already discovered. Here it may be necessary to caution people from relying on a knife being *blackened*, as a *complete* proof of the presence of arsenic; for yeast itself, gooseberries, and various kinds of fruits, may tinge iron black: any thing of an astringent nature will do it effectually."—pp. 82-3.

This incontrovertible experiment, however, as well as a variation of it, which, he says, "in point of demonstrative proof, must destroy the argument of the most fastidious critic," p. 84, does not satisfy us, and would not satisfy any person who had any practical knowledge of the subject. The production of the smell of garlic from arsenic is very uncertain, and is a test altogether equivocal. Dough loaded with arsenic does not give out any alliaceous odour, when put upon a polished halfpenny, and held over the flame of a candle, unless the half-charred dough is made to undergo actual combustion, by a part of it being brought over the edge of the halfpenny, so as to come into actual contact with the flame of the candle, a precaution of which no mention is made by Mr Marshall, and of which he was probably ignorant. Even when the alliaceous smell is produced, it is so disguised by the empyrema of the burning dough, that no person, who had duly reflected on the subject, would be satisfied with it, as evidence to himself. The bright and resplendent silvery whiteness is still more liable to error, and, in the present instance, did not arise from the presence of the arsenic, but from the mere application of the heat of the candle to the polished copper; for the heat of a candle is altogether insufficient to produce the chemical combination of arsenic with copper, which is the very essence of this test of arsenic. The last proof of the presence of arsenic adduced by Mr Marshall, in the paragraph quoted, is the worst of all; and it is astonishing that no friend prevented him from thus exposing his ignorance in a second edition. The blackening of a knife is not only not "a *complete* proof of the presence of arsenic," but is not a proof at all, for arsenic, in no circumstances, produces that effect.

In short, if the presence of arsenic in the dumplings had not been proved by Mr Hume of Long-Acre *himself*, whom Mr Marshall had the judgment to consult, there would have been no proof of the act of poisoning; for, as a judge, we should have had no hesitation in rejecting the evidence of Mr Marshall, as of an incompetent witness, on this point.

After these observations, we would not allude to his experiments on the decoction of onions; but that it gives us an opportunity of mentioning the curious facts that gave rise to them, of which we regret that we have not any accurate report, and of pressing upon our readers the necessity of always instituting comparative experiments in such an inquiry. In consequence of a trial for a suspected murder by poison, at Launceston assizes, in Lent 1817, it was discovered, that a decoction of onions gave a green colour with ammoniaco-sulphate of copper, and a yellow colour with ammoniaco-nitrate of silver, which had been relied upon by the prosecutor as evidence of the presence of arsenic in the contents of the stomach, and, as he was not prepared to redargue the facts, the pannel was of course acquitted. Mr Marshall, however, comes forward to remove all the difficulties suggested by this discovery.

> " It appears, on a cursory view, that these tests, of which they employed only *two*, underwent some deterioration, from their detail of experiments upon a decoction of onions producing the yellow and green *precipitates.* Indeed, the learned judge emphatically observed in his charge, that the onion *liquor* was always thrown away, and the vegetable itself only used. In consequence of the sophistical reasonings produced in the course of the medical evidence, this publication has been retarded until every satisfactory information could be derived from experiment to shew the fallacy of the inductions.
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> " This chemical investigation was instituted principally with a view to substantiate scientific facts, and to behold the validity and accuracy of the ammoniaco-nitrate of silver particularly, as well as the ammoniaco-sulphate of copper, as re-agents; for, until this part of the evidence be refuted, the general confidence of the faculty in them may probably be lessened. However, let any one thus biassed by such erroneous conclusions, or still entertaining a doubt, go through the same ordinal investigation about to be submitted for consideration, and he must immediately derive perfect satisfaction, by the palpable variation arising from the experiments.
>
> " In short, these tests for the detection of arsenic, are of too much importance to the professional world to be hastily abandoned, more especially as hitherto the science of chemistry is principally limited to them and their various modifications, until superior criteria are discovered. They must still remain the foremost in efficacy as already stationed and fully admitted in the scale of chemical affinities for detecting the presence of this poison when in a state of *solution.*" pp. 146-7.

Mr Marshall found that decoction of onions did not produce any precipitate with the re-agents employed, whereas his solution of arsenic did, in a very palpable degree. This is, no doubt, correctly stated; but two other facts are necessary to be known; that a very dilute solution of arsenic produces no precipitate with these tests, and that a decoction of onions, or other mucilaginous vegetable, prevents the production of a precipitate, when it would otherwise have taken place.

Mr Marshall's experiments on the decoction of onions are in themselves correct; but he should have repeated them on a decoction of onions, to which a small proportion of solution of arsenic had been added, before he ventured to defend the tests of ammoniaco-nitrate of silver, and of ammoniaco-sulphate of copper, as being in every case infallible.

We are afraid our readers are tired of this long discussion;

but we hold it to be of great importance, on account of the practice of our courts in receiving the evidence of all medical men as competent, and as nearly equal in point of conclusiveness; and of the presumption of our less informed and less cautious brethren, in giving evidence in cases of extreme difficulty, on which they have not bestowed the due degree of consideration, and which their previous knowledge has not even qualified them to investigate.

VI.

Medical and Miscellaneous Observations, relative to the West India Islands. By JOHN WILLIAMSON, M. D. 2 vols. 8vo. Edinburgh, 1817.

WE recommend these volumes as containing a valuable collection of facts relating to the diseases of Jamaica, and the prophylactic regimen to be adopted by Europeans who go to tropical climates. They consist chiefly of the author's monthly journal, which he kept regularly during a residence of fourteen years, for his own use, as a faithful record of occurrences and reflections, without any intention of its being communicated to the public. It is now published evidently as it was originally written, and the confidence with which we receive every statement in it, will amply compensate, in the opinion of those who seek for more than amusement in books, for the slight impression which is apt to be made, by the rapid succession, in which brief notices upon a great variety of subjects totally unconnected, are rapidly brought before the reader, and the labour which is necessary to bring together the facts relating to any one subject, dispersed as they are throughout a long journal.

Besides the author's journal, these volumes contain several interesting essays

On the Influenza, as it occurred at Jamaica, in 1802, 1807, and 1808,—On the Yaws,—On the progress of Vaccination in the island of Jamaica,—On the present condition of Medical Practitioners on estates and plantations in Jamaica,—On the Medical department, so far as it affects attendance on Negroes, in plantation practice,—On the Management of Negro women and children,—On the Condition of Negroes in the West Indies,—Observations concerning Europeans who go to the West Indies,—On the *Mal de Estomac,* or stomach evil,—Observations on the practicability of establishing Christianity among Negroes in the West Indies,—Abuse of Religion, on the part of certain Methodist missionaries in the West Indies.

PART III.

MEDICAL INTELLIGENCE.

REPORT of DISEASES treated at the EDINBURGH NEW TOWN DISPENSARY, *from June 1st to September 1st 1817.*

	No. of Cases.		No. of Cases.
Febris continua	77	Aneurisma aortæ abdom.	1
——— ephemera	10	Hepatitis acuta	1
——— intermittens	3	——— chronica	6
——— infantum remittens	69	Icterus	2
——— dentitionis	49	——— infantum	2
Hydrocephalus	3	Dyspepsia et Hypochondriasis	137
Cephalæa	65		
Mania	1	Hysteria	27
Apoplexia	1	Enteritis	3
Epilepsia	5	Peritonitis	2
Convulsio	4	Colica et Obstipatio	67
Ophthalmia	82	Cholera	8
Staphyloma	2	Diarrhœa	67
Fungus Hæmatodes oculi	1	Dysenteria	2
Amaurosis	2	Vermes	59
Otalgia et Surditas	8	Tabes mesenterica	4
Ozæna	1	Physconia	1
Polypus nasi	1	Hæmorrhois	7
Cancer labii	3	Hernia	4
Aphthæ et ulcera faucium	18	Prolapsus ani	4
Cynanche tonsillaris	27	Anasarca et œdema	8
——— laryngea	2	Ascites	1
——— trachealis	5	Hydrops ovarii	1
——— parotidea	4	Dysuria	10
Catarrhus	51	——— urethralis	1
Pneumonia	13	Hæmaturia	3
Pleurodyne	34	Gonorrhœa	7
Empyema aeris	1	Hydrocele	2
Phthisis et Hæmoptysis	45	Inflammatio testis	1
Asthma et Dyspnœa	9	Hæmorrhagia uteri	7
Hydrothorax	4	Leucorrhœa	9
Pertussis	2	Prolapsus uteri	4
Pericarditis	2	Amenorrhœa et chlorosis	13
Morbus cæruleus	1	Dysmenorrhœa	1
Palpitatio	13	Rheumatismus	[illegible]

	No. of Cases.		No. of Cases.
Paralysis	8	Urticaria	7
Asthenia	8	Strophulus	7
Rachitis	6	Lichen	10
Scrofula ossium et articulorum	14	Prurigo	3
——— glandularum	21	Lepra	8
——— cutanea	3	Psoriasis	18
Morbus spinalis	2	Roseola	1
Caries	2	Purpura	2
Necrosis femoris	1	Eczema	3
Syphilis	2	Ecthyma	7
Pseudo-syphilis	2	Impetigo	21
Scorbutus	1	Porrigo	32
Phlegmon	47	——— decalvans	1
Anthrax	1	Scabies	103
Mastodynia	8	Herpes	20
Scirrhus mammæ	1	Acne	1
Paronychia	6	Tumores	5
Erysipelas	3	Ulcus	33
Erythema	14	Ustio	8
Erythema nodosum	3	Vulnus	24
——— papulatum	2	Luxatio	2
Variola	5	Contusio et subluxatio	69
Varicella	9	Fractura	5
Rubeola	22	Ganglion	1
Scarlatina	19	Clavus	1
		Venæ varicosæ	2

The weather, during the latter part of the month of June, was unusually warm and dry. Since the beginning of July, a great deal of rain has fallen; and, notwithstanding the warmth of the season, the harvest seems likely to be rather later than usual.

The diminution of cases of affection of the chest, and increase of cases of disorders of the stomach and bowels common at this season, will be observed in the preceding list, as compared with that given in the last Number. Indeed, complaints of this last kind have been unusually frequent among all classes of people in Edinburgh, and its vicinity, during the present summer. Bilious diarrhœa has been the most common form of affection of the bowels. In some cases, this has been accompanied with more or less of vomiting, so as to acquire the name of cholera. In other cases, particularly after it had continued for some time, or when the patient had been exposed to cold or wet, dysenteric symptoms have supervened; and in children, these complaints have often been attended with a good deal of fever. In the cases which assumed the dysenteric form, the alternation of mild laxatives with opiates has appeared to us fully as successful as any combination of these that we have tried.

Our expectation of the diminution of contagious fever, in the course of the summer, has, in a great measure, been disappointed. The number of cases of fever in the present report is rather more than 1 in 25 of the whole. We have observed, indeed, that it has prevailed much less generally over the town than during the winter and spring; but having established itself in some of the worst aired, most crowded, and dirtiest of the closes, and in families obstinately prejudiced against leaving their homes when taken ill, it has affected a great many individuals within narrow limits. Twenty-three cases of fever, in the early part of the season, evidently originated from one individual who was taken ill, and remained in Skinner's Close; and forty-three cases have since been traced to a similar origin, in Bell's Wynd. We are convinced, that much might be done to arrest the progress of a contagion which is not extensively diffused, but obstinately inherent in certain small districts, by holding out inducements to early information regarding it, and to early removal of the sick, by furnishing temporary accommodations to those who cannot be removed, and, above all, by making provision for the purifying of the infected houses, furniture, and clothing,—an object which has been hitherto entirely neglected in Edinburgh.

In the meantime, it is consolatory to observe, that the disease, throughout the summer, has been of the mildest kind. There has been only one death of fever in the practice of the Dispensary this year, although a majority of the cases that occurred have been treated under many disadvantages in their own houses. The symptoms in the cases that have occurred since last report, have often subsided after the 7th day, and have seldom been protracted beyond the 14th. In the course of the second week, signs of considerable derangement of the nervous system have often occurred, particularly low delirium, deafness, tremors, and subsultus tendinum, watchfulness in some, and constant drowsiness in others; but there have been few symptoms indicating extreme prostration of strength, no petechiæ, and no gangrene from pressure. The eruption resembling measles, noticed in our last report, has been observed in some of the severer cases. A troublesome cough has occurred in some patients, and a diarrhœa in others, which have subsided along with the other symptoms. A well marked crisis, by diarrhœa, or by sweat, has been observed in a few, at different periods, between the 7th and 14th day. This description, it will be observed, applies particularly to the case of children, who have formed the greater number of the fever-patients of whom the Dispensary has taken charge. There have been only two cases of relapse during the year, although most of the patients have continued, during their convalescence, in the same rooms with those who were still sick, and in circumstances otherwise unfavourable to their recovery.

Among the diseases affecting the eye, a case of fungus hæmatodes, in the incipient state, was presented for advice. The patient, a boy of 10 years of age, complained of severe darting pain in the left eye-ball, extending through the head, and around the temple of that side,—much increased during the night, so as to prevent sleep. The eye-ball was considerably enlarged, and the conjunctiva slightly inflamed; the pupil was dilated, and immediately behind, in the posterior chamber, an opaque mass was observed pressing on the iris. The parents gave an indistinct account of the previous history of the disease; but observed, when the boy was about eight months old, that this eye, without evident cause, lost its natural transparency, which was soon followed by the complete loss of vision. A few years afterwards the boy received a smart blow on this eye, which excited violent inflammation, followed by the formation of matter, which was discharged by incision. He afterwards remained free from pain till ten days before his application, when it became very violent and constant in this eye, at which period the opaque mass in the posterior chamber was first noticed. Various active remedies were employed on his admission; general and topical blood-letting, purgatives, and fomentations to the eye. From these, however, no relief was obtained. It was now thought advisable, that the eye-ball should be removed, which was performed in the usual manner, on the 10th August 1817.

Upon dissection, an opaque mass of a white colour, and of the size of a large garden pea, was found attached to the edge of the retina, to the posterior surface of the iris, and occupied the posterior chamber. The eye-ball, though considerably enlarged, was not altered in its form, and the coats of the eye seemed perfectly sound, except at that part of the retina to which the tumour was attached, and to which it adhered pretty firmly.

This patient recovered from the operation without any unfavourable symptom; since which he has remained free of complaint.

Of the ophthalmia, which, it will be observed, has prevailed to some extent during the summer, it may be remarked, that it assumed in general the pustular form, and the ulceration which generally follows this species of ophthalmia, was in many cases completely prevented by general and topical blood-letting, and the administration of saline purgatives. Many of the cases of ulceration of the cornea, and consequent opacity, were cured by astringent and stimulant collyria, and tonics exhibited internally.

In the midwifery department 113 women have applied, and 74 have been delivered from the 1st of June till the 31st of August. Of these there were natural labours 57: preternatural 2; protracted 3; instrumental 2; complex 4; premature 2; and 4 abortions.

The two preternatural labours were, one breech presentation, and one in which both feet presented. The three protracted cases seemed to depend principally upon a deficiency of uterine action. In one there was considerable relaxation of the vagina, which required to be supported during the pains.

The two cases requiring the use of instruments were, first, one in which it had been conceived necessary to open the head, from an apparent rigidity, both of the os uteri and of the os externum, and from exhaustion of strength. This patient was forty-five years of age, and it was her first lying-in. We were not called to her assistance until from ten to twelve hours had elapsed after the head had been opened, by which time the child was extracted as far as the shoulders, its farther extraction being now prevented by rigidity of the external parts. It was only necessary to accommodate the long diameter of the shoulders to the long diameter of the outlet of the pelvis,—which was accomplished by carrying two fingers of the right hand under the arm-pit; after which the delivery was easily completed, particular care being taken to have the body carried forwards and upwards over the pubis, while a steady support was given to the perinæum. The child, from the appearance on the surface of the body, must have been dead for some days. The other case occurred at some distance from town The woman had been taken with the pains of labour of her first child on a Monday morning, and was attended by a midwife until the Friday morning at 4 o'clock, when we were sent for; but on account of the distance we did not arrive until 8 o'clock A. M. The account given by the midwife was so indistinct, that little could be learnt from her; but, upon examination, the child's head was found lying upon the bones of the outlet of the pelvis. The pains, notwithstanding the length of time labour had been protracted, were pretty strong and regular nearly every five minutes; pulse very full, and beating 120 in the minute; face much flushed, great thirst, with but little headach; the whole body was completely drenched with sweat. After a careful examination of the child's head, it was found to be lying diagonally in the pelvis, with the vertex to the acetabulum of the left side, while the face was lying between the acetabulum and the sacro iliac junction of the right side—at same time, it was discovered, that the descending ramus of the pubis, and the ascending ramus of the os ischium on the left side, were more rounded forwards, and approached nearer to the bones upon the opposite side, than is usual in a well formed pelvis; a circumstance which appeared to be the principal cause of the protraction of the labour, as the head could not readily turn into the arch of the pelvis. It was therefore resolved to have recourse to the vectis *or extractor*, that as little space might be occupied as possible when the head was passing through the outlet of the bason. This instrument was introduced along the left side of the pelvis, until it rested upon the mastoid process of the left side of the head, when an attempt was made to turn the head round—but the instrument slipped before this could be fully accomplished. It was then carried farther forwards on the same side of the head, and backwards in the pelvis to the angle of the jaw, where a secure hold was obtained, and the head was completely turned and extracted by the same effort. The body was soon afterwards expelled, and the placenta thrown off naturally. The woman had a good recovery. Notwithstanding the great length of time the head must have been in the pelvis, the child cried lustily as soon as born, and has continued to thrive. The preservation of the life of the child can only be accounted for from the head not having been compressed when passing through the brim, nor while it remained in the cavity of the pelvis, as they were both of a large size. It may be proper to state, that, from the situation of the head within the pelvis, no injurious pressure could be made upon the neck of the bladder; there was therefore no obstruction to the regular evacuation of urine during the continuation of the labour.

There were two labours complicated with uterine hemorrhage, occasioned by the placenta being placed towards one side of the cervix uteri. Both patients went on to their full time, and were delivered by the natural efforts. The other two were cases of twins.

There were two cases of premature labour, in one of which, after the uterine action had continued for some time, it was found necessary to extract the child with as little delay as possible, as there had been, and still continued, a considerable discharge of blood, which was beginning to have an effect upon the pulse. As the liquor amni was evacuated, and the os uteri pretty well opened, it was steadily pressed upwards during the pain by the two fore fingers expanded, first on the one side, and then on the other, until the head descended through it, after which the two fingers were easily carried around the neck of the child, when it was instantly extracted with great ease. The whole time required did not exceed a quarter of an hour. This woman was about six months gone with child, at least as nearly as we could judge. The child was born alive, and lived 14 hours; during which time, it occasionally swallowed a little asses milk. It weighed 2 lb. 4½ oz. English, and measured in length 13¾ inches. Its head measured 10 inches in circumference, and 6½ inches directly across from the tip of one ear to that of the other. There were 4 cases of abortion.

Of the 72 children produced, there were 40 males, and 32 females. The average duration of labour in all the cases which have occurred through the past year, has been 9 hours and 50 minutes. The deliveries have been most numerous in the months of January and June.

On the 1st August, the Senatus Academicus of the University of Edinburgh conferred the degree of Doctor in Medicine on the following gentlemen, after having gone through the appointed examinations, and publicly defended their respective inaugural dissertations:

Of SCOTLAND.

William Bain,	*De Vulneribus tormentis displosis ortis.*
John Bell,	*De Dyspepsia.*
John Boggie,	*De Hydrope Anasarca.*
William Boyd,	*De Febre Minorcæ.*
William Henry Burrell,	*De Ophthalmia.*
Robert Carnegy,	*De Ulcusculis Venereis penis.*
David Chalmers,	*De Febre continua contagiosa.*
William Seton Charters,	*De Vi qua motus animi valetudinem afficiunt.*
James Clark,	*De Frigoris effectibus in corpus vivum.*
Thomas Craig,	*De Delirio ebriositate oriundo.*
William Crawford,	*De Apoplexia sanguinea.*
Andrew Dods,	*De Febre in maris Mediterranei littoribus grassante.*
James Davidson Fleming,	*De Hernia Inguinali.*
John Forbes,	*De Mentis exercitatione et felicitate exinde derivanda.*
James Gellatly,	*De Hernia Inguinali.*
David Gibson,	*De Diabete Mellito.*
John Gillies,	*De Iritide vulgo inflammatione iridis dicta.*
James Guthrie,	*De Cholera Morbo.*
Robert Hogg,	*De Ictero.*
James Inglis,	*De Hydrencephalo Acuto.*
Thomas Inglis,	*De Pertussi.*
Peter Lamond,	*De Hepatitide.*
John Locke,	*De Malis capite vulnerato ortis.*
William Lucas,	*De Morborum Diagnosi.*
Robert Macdowall,	*De Dysenteria.*
William Montgomerie,	*De Hepatitide acuta.*
James Montgomery,	*De Phthisi Pulmonali.*
Walter Oudney,	*De Dysenteria Orientali.*
George Murray Paterson,	*De Mania.*
David Ramsay,	*De Angina Pectoris.*
Archibald Robertson,	*De Dysenteria regionum calidarum.*

Ebenezer Scott,	*De Rubeola.*
John Squair,	*De Hydrocephalo Acuto.*
William Taylor,	*De Apoplexia Sanguinea.*
Robert Tod,	*De Femoris Amputatione in cavitate cotyloidea.*
David Wight,	*De Hæmoptysi.*
Thomas B. Wilson,	*De Hepatitide.*

From ENGLAND.

Charles E. Bacon,	*De Typho in regionibus tam frigidis quam calidis.*
Thomas Barnes,	*De Erysipelate.*
John Grove,	*De Concoctione prava.*
Samuel Hibbert,	*De Vita Humana.*
William Kettle,	*De Dysenteria.*
Martin Loy,	*De Enteritide.*
Edward T. Luscombe,	*De Sanitate militum conservanda.*
Thomas Norris,	*De Regimine.*
John Ord,	*De Phthisi Pulmonali.*
Benjamin C. Pierce,	*De Bronchocele.*
Robert Smith,	*De Febre Infantili Remittente.*
John Stephenson,	*De Humani Generis Varietatibus.*
William Thomson,	*De Neuralgia.*
William B. Thornton,	*De Febre Puerperarum.*
Christopher Vickers,	*De Hypochondriasi.*
Charles W. Welchman,	*De Apoplexia Sanguinea.*
Joseph Widdup,	*De Iritide.*
James Forbes Young,	*De Trismo Nascentium.*

From IRELAND.

Robert Barlow,	*De Apoplexia Sanguinea.*
John Bernard,	*De Dysenteria.*
Thomas Bulkeley,	*De Enteritide phlegmonodea.*
M. O. Busteed,	*De Phrenitide idiopathica.*
Darnel Cantillon,	*De Cholera.*
Robert Alex. Chermside,	*De Aquæ frigidæ in febribus usu.*
J. J. Cronin,	*De Hepatitide.*
Mitchell Devitt,	*De Febre intermittente.*
Henry Gardiner,	*De Asthmate.*
Thomas Gernon,	*De Ictero.*
George Herrick,	*De Aneurismate.*
James Hunter,	*De Inflammatione.*
James T. Hurst,	*De Aneurismate.*
James Kelly,	*De Hepatitide acuta atque chronica.*
Samuel Kenning,	*De Febre Bulamense, ut Gibraltariæ anno 1804 apparuit.*
Nicolas King,	*De Submersione.*
Jeremias Leyne,	*De Concretione ciborum et Dyspepsia.*
Joseph Little,	*De Ictero.*
Philip Lyons,	*De Hepatitide acuta.*
William Magill,	*De Tetano.*
Thomas M'Keever,	*De Aqua.*

Edward Molony,	*De Morbillis.*
William W. Nason,	*De Pertussi.*
Alex. J. Nicholson,	*De Intemperantia.*
Laur. O'Reilly,	*De Aquæ Frigidæ in Pyrexiis tractandis præstantia.*
John Peebles,	*De Ischuria.*
Stephen John Ronan,	*De Fungo Hæmatode.*
John Shortt,	*De Febre Flava Hispaniæ.*
Samuel Sinclair,	*De Impulsu quo Cœlum Maris Mediterranei pulmones afficit.*
Robert Stephenson,	*De Respiratione.*
Andrew Thompson,	*De Vulneribus sclopeticis extremitatum.*
Matthew Walsh,	*De Rubeola.*

From JAMAICA.

William Rhodes Bernard,	*De Calore Animalium.*
David Shaw,	*De Chorea Sancti Viti.*
Henry V. Towton,	*De Somno, somnambulatione, et insomniis.*

From BARBADOES.

N. L. Young,	*De Cutis Inhalatione experimentis comprobanda.*

From HAMBURGH.

Ami Boué,	*De Methodo Floram regionis cujusdam conducendi, exemplis e Flora Scotica ductis et illustrata.*

Medical Lectures in the University of Edinburgh.

Dietetics, Materia Medica, and Pharmacy	Wednesday, Oct. 29.	8	Dr Home.
Practice of Physic		9	Dr Gregory.
Chemistry & Chemical Pharmacy		10	Dr Hope.
Theory of Physic		11	Dr Duncan, sen.
Anatomy and Pathology	Wed. Oct. 29. 1 o'clock.		Drs Monro.
Principles & Practice of Surgery	Wed. Nov. 12 4 o'clock.		
Theory & Practice of Midwifery	Tues. Nov. 11. 3 o'clock.		Dr Hamilton.
Clinical Medicine	Tues. Nov. 11 4 o'clock.		Dr Duncan. Dr Home.
——— Surgery	Mon. Nov. 3 5 o'clock.		Mr Russell.
Military Surgery	Sat. Nov. 15. 1 o'clock.		Dr Thomson.

Practical Anatomy under the superintendence of Dr Monro, jun.

During the Summer Session, Lectures will be given on the following Branches of Education:

Botany, by Dr Rutherford.
Midwifery, by Dr Hamilton.
Clinical Lectures on Medicine.
——————— on Surgery, by Mr Russel.
Medical Jurisprudence, by Dr Duncan, jun.

The Native Method of employing Vapour in Mysore in severe Colds and some Fevers. Extracted from a Letter to J. Rumsey, Esq. Surgeon, Amersham, from William Ingledew, Esq. Surgeon in the Hon. Company's Service, Madras.

The following is the native method of preparing and employing the vapour bath:—They boil two handsful of the fresh leaves of the Vitex Negundo, or five-leaved chaste tree, in about two gallons of water; after boiling a short while, it is ready for use, and the vessel in which it has been prepared is placed in a suitable situation for the application of the steam.

The patient is seated with the earthen vessel containing the decoction in front of and close to him, with his body advanced into the line of vapour as it ascends, and he is instructed to receive it upon his chest,—a thick cloth, or a blanket, is thrown over both himself and the vessel, and is sufficiently large to cover them entirely, and prevent the escape of the steam.

As soon as the vapour lessens, a brick, well heated in the fire, is placed upon the leaves within the vessel, to furnish a fresh supply, which it never fails to do in an abundant degree, and two other hot bricks are afterwards added in succession, for the same purpose, on the abatement of the steam.

Before the vapour given out by means of the third brick ceases, the patient will have been closely confined in it twenty minutes. This is considered a full and complete process, but it is frequently discontinued earlier, according to the feelings of the patient, and the quantity of moisture it has produced upon the skin.

The operation being finished, the skin of the patient is quickly rubbed dry, and he is put to bed in a close room. He generally rises free of complaint, and requires no further treatment than a short confinement to the house, to avoid catching cold.

When the leaves of the chaste tree cannot immediately be procured, simple boiling water only is employed with the heated bricks. The physicians consider this less beneficial than the former remedy, and believe that its effects are more superficial; it is probable they may overrate its comparative influence,—but this opinion is generally entertained by them.

This remedy is also stated to be employed with singular efficacy in the early stages of child-bed fever.

The Mysore country being elevated, subjects us to high and piercing winds, which occasion colds and common fevers. The vapour bath is employed, as is here stated, during the time of the *first* cold fit, and as early in it as may be practicable. The perspiration which is occasioned interrupts the cold fit previously to its natural termination, and thus the formation of a complete fever is prevented:—what would probably have terminated in a regular fever is thus removed in its earliest stage, and the indisposition ceases. The vapour is not employed after one or more complete paroxysms have been sustained; but there can be no doubt that many fevers are checked by this remedy, which is in common use by all descriptions of persons. It has not yet been employed by European practitioners early in fevers.

Remarkable Case. Communicated by JAMES WILLIAMSON, Esq. Surgeon, Barrs, Chester.

MRS H. ætat. 55, was afflicted, in July 1814, by an attack of Typhus mitior, from which, however, she favourably recovered, after great prostration of strength. Her general health appeared gradually to improve. In the month of November, of the same year, she perceived a slight degree of weakness in her neck, which increased until March 1815, when she found herself unable to hold her head in its natural position, or to exercise the usual control over the voluntary muscles of her neck. When she wished to direct her attention to any object immediately before her, or on her left side, she was obliged to guide it by her hands, and found much difficulty in retaining it in that position long. Connected with this loss of voluntary power in the muscles of the neck, was this singular circumstance. In the night, or after *any long continued abstraction of light*, she found that she possessed all the usual control over the direction of her head. It was not only restored to its natural position, but she was able to turn it on either side with the greatest facility. About this time, she was attacked by regular paroxysms, consisting of the complete loss of all the powers of voluntary motion, great dejection of spirits, and a violent spasmodic action of the muscles of the lower jaw. So violent (she says) was the gnashing of her jaws, that it forced out most of her teeth, though in a perfectly sound state. In these circumstances, she continued until the close of last year, when the violence of these paroxysms abated, and the remarkable modification of the powers of voluntary motion in the muscles of her neck, by the absence of light, has almost entirely disappeared. She is still, however, sensible of a slight difference in the power of moving her head when light is present, and when it is removed. The rigidity of her head, and its inclination to the right side, remain nearly as great as ever The neck presents no appearance of swelling nor condensation, and she has never perceived the least pain in it. Mrs H. has lately become my patient, and I have prescribed the exhibition of electricity in the form of sparks, the external application of liniment camph. comp. and friction with a flesh brush. She has already derived some benefit from the use of these means, and I hope that, by perseverance, she may receive more signal relief. I have thus related most of the particulars of her case; but it will be obvious, that the most remarkable feature is that which relates to the restoration of the power of voluntary motion during the absence of light I shall not attempt to explain it by any theory of my own, hoping to receive something more satisfactory from yourself, or some of your correspondents.

P. S. Should any doubt arise as to the veracity of my patient, I would merely say, that she is a person of great respectability, and one upon whose testimony I should place the most implicit confidence.

Successful employment of the Piper Cubeba in the Cure of Gonorrhœa and Gleet.

Mr Craufurd, surgeon in the service of the Honourable East India Company, was informed by a Hindoo, when in Bengal, that the Cubeb was an infallible cure for gonorrhœa; and, upon trying it very extensively afterwards when at Java, he found the information was correct. The mode of exhibiting it was to give a desert spoonful three or four times a-day in about three ounces of water. The discharge stops in about twenty-four hours. It occasions moderate purging,—flushing and heat in the hands,—but no fever. In one or two cases it produced swelled testicle. It succeeded equally with Europeans and natives; and it is singular, that, at Java, where only the plant is to be found, this use of the plant was not known until introduced from Bengal

Professor Orfila, author of the celebrated Treatise on Animal, Mineral, and Vegetable Poisons, has in the press an elementary work on Chemistry. It is expected that an English translation will appear soon after the publication of the original.

Dr Baron of Gloucester is preparing for publication, an Inquiry respecting some of the Diseases of the Serous Membranes of the Abdomen and Thorax, together with Observations illustrative of Disorders of the Mucous Surface of the Alimentary Canal. This work will contain four Engravings.

Medical School, St Bartholomew's Hospital.

The following Courses of Lectures will be delivered at this Hospital during the ensuing Winter, to commence October 1st:

On the Theory and Practice of Medicine, by Dr HUE.
On Anatomy and Physiology, by Mr ABERNETHY.
On the Theory and Practice of Surgery, by Mr ABERNETHY.
On Chemistry and Materia Medica, by Dr HUE.
On Midwifery, by Dr GOOCH.
Practical Anatomy, with Demonstrations, by Mr STANLEY.

Further particulars may be obtained, by application to Mr WHEELER, Apothecary at the Hospital, or of Messrs ANDERSON and CHASE, Medical Booksellers, 40, West Smithfield.

Medical, Chirurgical, and Chemical Schools, George Street, Hanover Square; and Medical Theatre, No. 42, Great Windmill Street.

The Course of Lectures will commence in the following order:

1st, On the Laws of the Animal Economy, and Practice of Physic, at No. 9, George Street, Hanover Square, on Monday October 6th, from nine till ten in the Morning, and to be continued at that hour every Monday, Wednesday, and Friday, by GEORGE PEARSON, M D. F. R. S. of the College of Physicians, and Senior Physician to St George's Hospital.

2d, On Chemistry, at the Royal Institution, on Tuesday, October 7th, from nine till ten in the Morning, and every succeeding Tuesday, Thursday, and Saturday at the same hour; by W. T BRANDE, F. R. S. Professor, Royal Institution.

3d, On Therapeutics, with Materia Medica and Medical Jurisprudence, on Wednesday October 8th, from eight till nine in the Morning, and to be continued at that hour every Monday, Wednesday, and Friday; by G PEARSON, and W. T. BRANDE, F. R. S. Professor, Royal Institution.

4th, On the Theory and Practice of Surgery, on Friday, October 3d, at seven in the Evening; to be continued every succeeding Monday, Wednesday, and Friday, at the same hour; at the Theatre, 42, Windmill Street, by B. C. BRODIE, F. R. S. Assistant Surgeon to St George's Hospital.

5th, Sir EVERARD HOME's gratuitous Lectures on some of the Operations of Surgery, given to the pupils of St George's Hospital, will be delivered as usual.

Dr CLOUGH, 68, Berner's Street, Physician-Accoucheur to the St Mary-la-bonne General Dispensary, the Endeavour, and Benevolent Institutions, &c. &c. announces the recommencement of his Winter Course of Lectures on the Science and Practice of Midwifery, &c. early in October, timely notice of which will be issued in most daily papers.

Dr Uwins, Physician to the City and Caledonian Dispensaries, will commence a Course of Lectures on the Theory and Practice of Medicine, at his House, No. 1, Thavies Inn, Holborn, on Friday, the 3d of October, at seven o'clock in the evening precisely.—And, in Spring, Dr Uwins will commence a Course of Lectures on Materia Medica and Pharmacy.

Dr Clutterbuck, Physician to the General Dispensary, Aldersgate Street, will begin his Autumn Course of Lectures on the Theory and Practice of Physic, Materia Medica, and Chemistry, on Friday, October 3d, at ten o'clock in the morning, at his House, No. 1, in the Crescent, New Bridge Street, where further particulars may be had.

Pupils are admitted, as usual, to attend the Medical Practice of the Dispensary, and, when qualified, to visit the patients at home. Clinical Lectures on the most interesting and instructive Cases will be given at the Dispensary, by the Physicians in rotation.

Communications have been received from Mr Robertson and Mr Terry, and the following Publications have been sent for review:

Suggestions for the prevention and mitigation of epidemic and pestilential diseases, comprehending the abolition of quarantines and lazarettos; with some opportune remarks upon the danger of pestilence from scarcity, intended to serve as an introduction to a work entitled, Researches in Turkey concerning the Plague. By Charles Maclean, M. D. 8vo. London, 1817.

Institution for administering medical aid to the sick poor, and assisting them and their families with the necessaries of life during sickness, and for preventing the spreading of contagious diseases. 8vo. Dublin, 1815.

Report of the Managing Committee of the House of Recovery and Fever Hospital in Cork Street, Dublin, for one year, ending 4th January 1816. 8vo. Dublin, 1816.

Medical Report of the Hardwicke Fever Hospital for the year ending on the 31st March 1817, (from the Dublin Hospital Reports and Communications in Medicine and Surgery.) 8vo. Dublin, 1817.

A Physiological System of Nosology, with a corrected and simplified Nomenclature, by John Mason Good, F. R. S. &c. 8vo. London, 1817.

An experimental Inquiry into the Laws of the Vital Functions, with some Observations on the Nature and Treatment of Internal Diseases, by A. P. Wilson Philip, M. D. F. R. S. E. 8vo. London, 1817.

A Treatise on the nature and cure of Gout and Rheumatism, by Charles Scudamore, M. D. 2d Edition, much enlarged. 8vo. London, 1817.

Remarks on Insanity, founded on the practice of John Mayo, M. D. Fellow of the Royal College of Physicians, and tending to illustrate the physical symptoms and treatment of the disease, by Thomas Mayo, B. M. 8vo. London, 1817.

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